Berkeley's Philosophical Commentaries

generally called the Commonplace Book

Philosophical Commentaries

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George Berkeley Bishop of Cloyne

An editio diplomatica transcribed and edited
with introduction and notes by

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PREFACE

THE two notebooks whose philosophical contents are the subject of this volume were filled nearly two hundred and fifty years ago by a young man aged twenty-two or twenty-three, and were never intended for any eye but his. Do they deserve all the notice they have received? Are they entitled to the honour of an *editio diplomatica*? Both questions may fairly be answered in the affirmative. These notebooks have already repaid study; there is more to be ascertained about them and through them; and when their full harvest is reaped, Berkeleian scholarship will have been greatly enriched. In summary justification of the scale of this edition, I point to the doctrinal importance of these notebooks, to their personal interest, and to their testimony to the masterly care with which Berkeley examined his case against matter and marshalled his argument. Let me develop these points briefly.

The notebooks cover all the philosophy of the *New Theory of Vision* and the *Principles*, and they set Berkeley's key doctrines, existence in the mind and the reality of body, in a clear light, thereby obviating in large measure those standing misconceptions and misrepresentations of his teaching which date from his own day and flourish still. They show his thought to the instructed reader as a living and growing thing. Here origins can be traced and development watched. Here we see Berkeley thinking and re-thinking, debating, hesitating, changing his mind, clearing up difficulties, and reaching decisions. In the opening pages his speculations seem about to issue in a panpsychist theosophy; in the closing pages they have become the philosophy of the *Principles*, a sober philosophy of sense and spirit, which any theist might hold.

Then, too, the personal interest of the document is considerable. In it there is material for the biographer. From it we learn that Berkeley was 'sceptical at 8 years old' and was 'consequently by nature disposed for these new doctrines.' In it we see a great system of thought in the making. In it we see the discoverer of the New Principle at

the moment of his discovery, reflective and reminiscent, 'upon a peak in Darien.' He writes :

> 'I wonder not at my sagacity in discovering the obvious tho' amazing truth, I rather wonder at my stupid inadvertency in not finding it out before.'

Again, these notebooks go far to correct those wrong impressions of the man and his early work to which Professor A. C. Fraser has given currency. The infant prodigy, the romantic schoolboy feeding on airy visions—with those touches Fraser gilds the frame, but his picture is that of an unscholarly, ill-read young man from a semi-barbarous country, who in the ardour of youth hurried into print with an immature argument, lived to regret his haste, and in the end recanted. A glance at his notebooks, however, shows that Berkeley, when he wrote them, was a well-educated, widely read, level-headed, cautious man, fully abreast of the thought of his day, both British and Continental. A study of them proves that for some years before he went to press he had carefully and critically considered his argument for immaterialism from many angles, and by breadth of learning, by ripeness of judgement and philosophical insight, was thoroughly qualified to set it forth.

No-one who accepts Berkeley as a contributor to world philosophy, sure of his place in the 'pantheon of godlike figures,' will grudge him the tribute to his greatness intended by this edition of his work.

I have had some difficulty in naming these nameless notebooks. Fraser's name for them, the *Commonplace Book*, has been known to scholars the world over for seventy years. It is the accepted name required at present for purposes of reference, and accordingly I have retained it in the sub-title and throughout my Notes (abbreviated '*CPB*'), and in a few places in my Introduction where the old name seemed necessary. But the old name is a bad name ; it gives a wrong impression of the contents of the work, and I cannot retain it in the title. In an edition which aims at scrupulous fidelity to the original, I cannot call the work what it is not, and I must call it what it is. A Commonplace Book is by derivation a book of *loci communes*, a collection of passages of general

import required for reference, and the term has come to mean a literary scrapbook composed of random jottings. This work is not a Commonplace Book in either the original or the modern sense. It is a pair of commentary notebooks containing comments, more or less systematic and highly particularized, comments focused upon a complex argument for immaterialism which was present in outline in Berkeley's mind for some time before he began to fill the notebooks. With that argument in view throughout Berkeley here comments upon his own theories, upon the difficulties they involve, upon the books he read, and upon his own literary plans. The notebooks are commentaries from every aspect and in almost every part. Accordingly, I have ventured in the title to rename the two notebooks, in respect of their philosophical contents, Berkeley's *Philosophical Commentaries*. If it be objected that the term 'Commentaries' implies a prior document to comment on, I answer that I think there was such a document, and have advanced a theory to that effect in my Introduction (below, pp. xxxii*ff*.); but I hasten to add that even if my theory were wrong and Berkeley were not commenting on a *written* argument, then he was commenting on an *unwritten* argument ('my first arguings'), lengthy and clear-cut, and therefore in either case the term 'Commentaries' is a true and proper designation of his work.

My acknowledgements are due to previous workers in this field, especially to Professor A. C. Fraser, who found the manuscript and published it, to Professor T. Lorenz, who found the key to its construction, and to Professor G. A. Johnston, who made the work accessible and intelligible, and first interested me in it.

Of the many friends who have helped me I must mention first Professor T. E. Jessop of the University College of Hull, and my colleague Mr. E. J. Furlong. Their help has amounted almost to collaboration. Mr. Jessop and I have worked together for ten years in the highways and byways of Berkeleian studies, and in the difficult task of planning this book his scholarship and judgement and experience in the technique of book construction have been at my call and have served me well. The

EDITOR'S INTRODUCTION

BERKELEY'S *Philosophical Commentaries*, generally called the *Commonplace Book*,[1] consists of the series of philosophical notes, nearly nine hundred in number, contained in the manuscript volume, Add. MS. 39305, which with the rest of the *Berkeley Papers* was presented to the British Museum in 1916 by Mrs. W. F. Rose. The old title, *Commonplace Book*, is sometimes bestowed on the whole volume, consisting of 180 folios as numbered by the Museum authorities; but more exact usage confines the term to the well defined series of entries on folios 3–94 and 104–164, inclusive. The page in millimetres measures 200 by 158. The greater part of the manuscript is in a fair state of preservation, and can be read with ease; but the last two lines of the pages of nearly half the volume have been affected by damp or water; in consequence some words on those pages are difficult to read; the ink has perished, and only the faint impression of the pen, just decipherable in good light, is left. There are very few passages in which the text is seriously in doubt, but there are passages in which we have to depend on the work done by Fraser seventy or eighty years ago. Time is appreciably affecting the fabric of the manuscript, and it has become a matter of urgency to fix the text now.

This curious work was discovered by Professor A. C. Fraser, who published it in his 1871 edition of the *Works* in Vol. IV, and in his 1901 edition in Vol. I. Dr. G. A. Johnston edited it in a separate volume in 1930. Various translations of it have been made, into French by Raymond Gourg (*Le Journal philosophique de Berkeley*, Paris, 1908), into Italian by M. M. Rossi (*Georgio Berkeley, Gli Appunti tradotti* . . . Bologna, 1924), and into German by Andreas Hecht (*Berkeley, Philo-*

[1] Professor A. C. Fraser gave it this name; *Works* (1871), Vol. IV, p. 419*n*. I have renamed it *Philosophical Commentaries* and often refer to it simply as the *Commentaries*.

sophisches Tagebuch, Leipzig, 1926). Johnston's edition was a great improvement on Fraser's; it made possible a systematic study of the work, and it must be mentioned with honour along with the *editio princeps*; but both editions, together with the Continental editions which largely follow Fraser, leave much to be desired. Their text is inaccurate;[1] their order of entries (Fraser's *in toto*, Johnston's partially) is wrong; they include some extraneous material; they omit a large part of the system of marginal signs, and their annotations are scanty.

THE TEXT OF THE PRESENT EDITION

The present edition prints an accurate text, based on my own study of the manuscript. The entries are shown in the order in which Berkeley wrote them, complete with the marginal letters and signs which he affixed. I have commented on almost every entry, and I have relegated to the Appendix those miscellaneous contents of the volume which ought to be published, but which, standing outside the system of marginal signs, are not part of the *Philosophical Commentaries* proper.

This may be called an *editio diplomatica*; for I have aimed at giving, and have given, in essentials and within the limitations of print, a replica of the manuscript. I have here reproduced the original, page for page, line for line, and word for word. All the entries are thus shown as Berkeley wrote them, and on the pages of the text all is by Berkeley, except the bare requisites for reference, *viz.*, the folio, page, and entry numbers, and the *obelus* to mark doubtful readings, the alternative readings being given in my Notes which follow the text. This method of exact representation, *paginatim et lineatim et verbatim*, is the only effective way of showing Berkeley's running commentary on his own writing; it

[1] Errors in Johnston's text, some of them very serious, were listed by R. I. Aaron in *Mind* (October 1931 and April 1932) and by A. A. Luce in *Hermathena* (Vol. XXII, 1932).

conveys something of the intimate quality of this revealing document; and the trouble involved is a tribute due to a highly singular work, which has become part of the heritage of European and American philosophy.

Berkeley's spelling and punctuation have been closely followed; his archaisms, inconsistencies, and blunders are not frequent or serious enough to hamper reading. His capital letters are reproduced;[1] this detail has no little importance; for Berkeley uses the capital to express antithesis, stress, subtle shades of meaning, or turns of thought; one can often see the purport of an entry by a glance at its capitals, and the fairly systematic change of *idea* into *Idea* (see below, p. xix) is decisive on certain textual questions.

Illegible erasures are shown as such, where they occur. Words erased but still legible, interlinings and other insertions, are reproduced just as they appear in the manuscript; some of them are of interest, some are not; those which show his 'second thoughts' are of real importance to students of the development of Berkeley's thought. For the same reason the *verso* or left-hand page is important; normally the *recto* is filled, but the *verso* is blank. The *verso* was clearly reserved for Berkeley's comments (if any) on the *recto* entries. The entries on the *verso* number about fifty-four, and they are of special interest, as being Berkeley's second or third thoughts, which criticize, correct, qualify, and sometimes even contradict his first thoughts, thus showing the trend of his speculations. I have printed them in their exact manuscript position, opposite the entries to which they refer.

The serial numbers of the entries are not by Berkeley; but they are very necessary for purposes of reference. Johnston had already numbered them, but I could not take over his numeration, because I differ from him

[1] In the case of *M* and one or two other letters one cannot always tell which is capital and which not.

with regard to the order of many of the entries. I have, however, given (below, p. xlii) a Table of Concordance which shows the correspondence between his numbers and mine and the page numbers of Fraser's (1901) edition. To the *verso* entries I have given the same number as the *recto* entries facing them, with the addition of the letter a. Thus 37a means the entry on the *verso* opposite 37. Those few *verso* entries (*e.g.* 98) which do not refer to *recto* entries have their own number in the series. Two pairs of facing pages (MS. 159*v* and 160*r*, 163*v* and 164*r*) are special cases; they appear to have been filled more or less continuously, *verso* and *recto*; and there I have used my judgement as to the probable order, and have numbered the entries accordingly.

For the benefit of scholars who may wish to refer to the manuscript, I have printed at the head of each *recto* page of the text the folio number pencilled in the corresponding position in the manuscript. It will be noticed that owing to the transposition of the notebooks, these numbers in my edition begin at 103, proceed to 164, thence back to 3, and on again to 95.

I have given in the Appendix an inventory of all the contents of the manuscript volume, and have printed there the thirty-five 'statutes,' the *disputatio* (the 'Queries'), and the laws and problems of motion. The sermon notes and the algebraic equations are not worth reproducing, and the *Description of the Cave of Dunmore* is accessible in the *Works*. The page (MS. 103*r*) immediately preceding the opening of the *Philosophical Commentaries*, and the page (MS. 95*r*) immediately succeeding its close, are both reproduced with the text because they contain dates which help to fix the date of the work. The philosophical notes and queries [1] on the page inverted (MS. 164*v*) are printed in their corresponding place.

Everything in the volume is, I believe, in Berkeley's handwriting,

[1] Numbered by Johnston 946–953.

except his son's signature (see below, p. 129). The binding is uniform with that of MSS. 39304 and 39313. The binding was done, almost certainly, after Berkeley's death, and probably by Hugh James Rose, who was in possession of the *Berkeley Papers* in the early part of the nineteenth century.[1]

THE TWO NOTEBOOKS AND THE PRIORITY QUESTION

THE unevenness of the edges, and the tape-marks on the back of folio 95 (MS.), with other indications, show that the volume is composite. It consists of two notebooks bound together. Lorenz [2] was the first to draw attention to this fact, and he suggested that the notebooks had been bound together in the wrong chronological order—in other words, that Berkeley wrote the first part of the present volume *after* the second part. The suggestion is correct, and as it is the foundation stone of the whole textual criticism of the document, I must state the evidence for it in detail.

The terms *first notebook* and *second notebook* would be ambiguous and misleading in this case, and accordingly, with Johnston, I will call the notebook (MS. folios 3–95), which *now* stands first in the volume, *A*, and the other notebook (MS. folios 96–180), *B*. I have to show that in the main [3] *B* was filled first and *A* second. There are three convincing lines of proof: (1) the dates in the notebooks, (2) the doctrines, (3) the orthography of the word *idea*.

(1) The date 1706 ('Jan. 1705' is Old Style for 1706) occurs three times in the opening pages of *B*, and the date 1708 occurs on the last page

[1] For the history of the *Berkeley Papers* and a fuller account of the physical features of the MS., see Jessop and Luce, *A Bibliography of George Berkeley*, pp. 81, 83–4.

[2] *Archiv für Geschichte der Philosophie*, XVIII, 1905, pp. 554 *ff*.

[3] 'in the main,' because there is some evidence, such as the duplication of the series 351–358 with 415–424, that Berkeley began *A* before he had quite finished *B*, and that he was filling both notebooks simultaneously for a short while.

of *A*. Those facts *per se* would not settle the priority question; for of course one can write '1706' in 1708, and '1708' in 1706; but on examining the formal datings of the rules of the societies in the manuscript itself (see below, MS. folio 103 and App. p. 470), one is convinced that they were written there at the time, and that the philosophical entries could not have been made till after those dates. Similarly the position of the date 'August 28th 1708' at the head of the last folio makes it highly probable that it was written at the time, and that it is Berkeley's dating of the completion of the work (see below, p. xxxi and p. 313).

(2) The doctrinal development disclosed in the work requires the priority of *B*. There are doctrines in *A* which assume and build on the work of *B*. *B* in the main deals with the topics of the *Theory of Vision*, and *A* in the main deals with those of the *Principles*. Further, the order of development of Berkeley's thought is from *B* to *A*, and not from *A* to *B*. His immaterialism is the same throughout, but in certain important details his philosophy in *A* is more mature than in *B*; some views expressed towards the beginning of *B* (*e.g.* in No. 24) differ widely from the official doctrine of the *Principles*, whereas entries dealing with the same topics towards the end of *A* (*e.g.* in No. 847) will be found to be in almost entire agreement with the *Principles*. Take the pair of notebooks and study the entries dealing with any of the following doctrines—abstract ideas, the nature of soul or mind, simple ideas, demonstration, the reality of body, ideas of spirits, words without ideas, or powers; study them first in Fraser's editions which print *A* before *B*, and then in my edition (or Johnston's) which prints *B* before *A*, and you find that the priority question settles itself; for in Fraser's editions the relevant entries form a mere set of random remarks, often inconsistent and contradictory, while in my edition they yield on the whole an orderly movement of maturing thought.

In particular, consider the 'Demonstration' of the New Principle *more*

geometrico (378), which Berkeley hammered out and presents in nineteen numbered propositions with divisions and cross-references. It occupies two pages near the end of *B*, *i.e.* towards the early middle of the *Commentaries*. That is quite its proper place; for the New Principle was discovered in *B*, and a 'demonstration' of it, promised in 363, forms the natural climax of that notebook. But Fraser's order banishes it to the end of the whole work (*Works*, Vol. I, pp. 89–90), where it is decidedly out of place. For in the latter part of *A* Berkeley weakens on the whole question of demonstration, and he writes (858):

> 'I must not pretend to promise much of Demonstration. I must cancell all passages that look like that sort of Pride, that raising of Expectation in my Readers.'

Is it conceivable that *after* taking that resolution he should frame this elaborate two-page 'Demonstration,' and trouble to record it? Besides, several of the component propositions stand for principles accepted in B, but rejected in A, *e.g.* the first two propositions:

> 'All significant words stand for Ideas.
> All knowlege about our ideas.'

At first Berkeley held those Lockian principles as axioms; but he gave them up while he was filling *A*; for he had found significant words which do not stand for ideas, and he had found knowledge without ideas, *i.e.* knowledge of spirits. Thus Fraser and those who with him follow the book-binders' order of the notebooks are reduced to the absurdity of making Berkeley's intellectual labours in this his *annus mirabilis* culminate in an unwanted Demonstration based on principles which he had already rejected.

(3) The third line of proof, scarcely necessary after the foregoing, rests on an orthographical detail in the manuscript.[1] The extant Berkeley

[1] For a full statement of the supporting facts and figures see my article in *Hermathena*, Vol. XXII, 1932, reprinted in my *Berkeley and Malebranche*, pp. 194*ff.*

manuscripts of the years 1706–8 show a marked change in orthography during that period. At the beginning Berkeley almost always wrote *idea* with a small *i*; at the end he almost always wrote it with a capital; and during the middle period he wrote *idea* and *Idea* indifferently. Now the *Commentaries* conforms to and exemplifies this practice, showing the three periods well defined in regard to its 400 or more occurrences of the word; but it does so if, and only if, the two notebooks are taken in the order *B–A*. If, on the other hand, they are taken in the order *A–B*, they do not conform, and then they would yield the bizarre and impossible result that Berkeley in these two notebooks at first wrote *idea* and *Idea* indifferently, then *Idea* exclusively, then changed suddenly to *idea* exclusively, and finally reverted to his original indifference and wrote *idea* and *Idea* at haphazard. That result, in itself unlikely, becomes incredible when taken along with the other Berkeley manuscripts of the period.

The priority question is thus settled by three independent arguments which concur in the same conclusion, and the order *B–A* is established beyond a peradventure.

The mistake in binding probably arose from the outward appearance of the notebooks. The first page of *A* (MS. folio 3, see below) with its table of the marginal letters *looks* like the opening of a work, whereas the first page of entries in *B* (MS. folio 104, see below) does not.

The last section of notebook *B* has given rise to another question of order, a much smaller question than the foregoing, but still one of importance.[1] It concerns the entries, numbered 377–99 in this edition (903–45 in Johnston's edition), which occupy the folios 161–4 in the manuscript. Continental editors conjectured that for some unknown reason Berkeley left these pages blank at first, but returned to them

[1] The terms *manuscript order*, *position*, etc. in this connection mean the order, etc., relative to notebook *B*. The order of *A* and *B* has been dealt with in the foregoing paragraphs.

and filled them after completing *A*. Johnston has acted on this conjecture, and has rashly transferred the section from the end of *B* to the end of *A*.[1] I restore the manuscript order.

The departure from the manuscript order is purely conjectural, as Johnston admits; there is no external evidence for it, and the only shadow of internal evidence for it is that entries 396–8 show Berkeley contemplating the publication of a book, wrongly assumed to be the *Principles*. This consideration proves nothing; for Berkeley was contemplating the publication of more books than one right from the start of the *Commentaries*. If the publication was *imminent*, when these three entries were written (which is not said or implied), the book was probably the *Theory of Vision*, which may well have been at an advanced stage early in 1708. 'y^e treatise' in 396 certainly does not refer to the *Principles*, as some commentators have stated; for it refers to Locke's *Essay* (see my note on the entry).

The orthography of *idea* tells decisively against the transposition; for Berkeley writes here, 'neither our Ideas nor anything like our ideas' (379), and 'other men's ideas . . . same Ideas as we Irishmen' (397–8). When he penned these entries he was using capital and small initial indifferently; the writing of the word belongs to the transitional period, and therefore the section must stand towards the middle of the *Commentaries* and could not stand at the end.

The entries themselves are *against* the transposition of the section and *for* the manuscript order; they fall into two groups, the 'Demonstration' of the New Principle, and a miscellaneous collection of remarks mostly about mathematicians. I have written fully on the Demonstration above (p. xviii), and have shown that it is in place in the middle of the *Commentaries* and is doctrinally impossible at the end.

[1] From his words in his edition, p. xxix., and his *Development of Berkeley's Philosophy*, p. 24, I gather that he did not give the question his close personal attention, regarding it as unimportant.

The other entries, too (381–99 in my edition, 925–45 in Johnston's), must be kept in their manuscript position.[1] Most of them are unflattering remarks about mathematicians, similar in tone and thought to the series 364–76, belonging with them to Berkeley's early, less responsible period. 'I can square the circle, etc. they cannot' (395), or 'I'll teach any one the whole course of Mathematiques in $\frac{1}{100}$ prt the time that another will' (385). I do not think he could have recorded those boasts, as Johnston's order makes him do, *after* writing the modest words (called for by those boasts already written), 'Mem: upon all occasions to use the Utmost Modesty. to Confute the Mathematicians wth the utmost civility & respect. not to stile them Nihilarians etc.' (633).

The reference to the satirical term *Nihilarian* is quite conclusive; the wise decision to drop it comes in my edition, as in the manuscript, *after* a series of entries on the mathematical point as a 'nothing,' and the mathematicians as 'Nihilarians' or 'Nothingarians'; here they are: 337–8, 344–5, 372, 384, 394, 399, 438–9, 464, 471, 488—a fairly solid block, roughly about the same period. But Johnston's order locates that decision right in the middle of that series, thus making Berkeley write satirically of the 'nothings' and use the very term 'Nihilarian' (399, *cf.* 384, 394) *after* deciding not to do so. In Johnston's text and numeration the above series appears as 349–50, 357–8, 381, 928, 940, 945, 435–6, 463, 470, 490; this arrangement makes it impossible to read the entries connectedly, and illogically divides them into two blocks separated by half the distance covered by the work. This and other inconveniences and improbabilities (*e.g.* the wide separation of the duplicates 367, 387) follow from the unnatural surgery, which cuts off the conclusion of notebook *B*, and would affix it to the end of notebook *A*.

[1] Johnston's 946–53 are not part of the *Commentaries*, and I have reproduced them just as they are in the manuscript, see below, p. 126; they are on the verso of MS. folio 164, upside down, and they have no marginal letters or marginal signs.

THE MARGINAL LETTERS AND SIGNS

BERKELEY affixed a letter or a sign (sometimes both) in the margin to practically every entry; the only exceptions are 113, 223, 266, 379–80, 406, 537, 560, 620, 634, 636, 642, 715, 751, 789, and these are mostly trivial and purely personal remarks. Berkeley must have taken considerable trouble with the system. What purpose it served originally is not very clear; but no edition would be complete without it; it marks off the *Philosophical Commentaries* from the other contents of the volume; it can provide a clue to the meaning of some entries (*e.g.*, 122, where see my note), and in some cases it can tell us where to look for the corresponding passages in the books.

Nine letters of the alphabet are used; the signs are the multiplication sign × with legs elongated like the Greek letter *chi*, and the plus sign +. Over 500 entries are marked with a letter; some 300 have the × with or without a figure in an angle, and nearly 200 have the +. From the position of the table of letters on the opening page of *A*, the total absence of 'E' entries from *B*, and the large number of entries in *B* marked (*prima manu*) 'S' where 'S' does *not* mean 'Soul or Spirit' but almost certainly means 'Space,' I judge that the present letter system was original in *A* and was extended backwards to *B*; probably the mathematical sign system was original in *B*, and has been extended forward to *A*.

Berkeley gives a table of the letters with their meanings on the opening page of *A*; I have reproduced the table and have expanded it in my note (*ad. loc.*), adding the number of occurrences of letters and signs in each of the notebooks in order to show roughly the distribution of subject-matter in the whole work.

Matter and its qualities are evenly distributed between the two note-

books, immaterialism being the primary theme of the whole work. The nature of existence was discovered in the course of writing *B* (towards the end), and therefore formal entries on Existence (E) do not begin till the opening of *A*. The Introduction to the *Principles* makes an appearance in *B*; it was meant then to contain 'the design of the whole, the nature & manner of demonstrating' (212); it becomes prominent in *A*, and abstract ideas, its present theme, take the place of demonstration. The soul, spirit, mind, will, etc., come in for a little discussion in *B*; but much fuller treatment of psychology, maturer views, and more settled terminology are to be found in *A*. The line between T and S is Berkeley's; it would seem intended to mark off the topics of *Principles*, Part I, from those of Part II and the projected Part III (see my note on entry 676). There are over forty cases in *B* of S erased—evidently a trace of an earlier system in which S meant Space; M has been substituted as a rule, sometimes P; in a few cases, *e.g.* 96, 121, the S has not been stroked out, but is left standing in its original meaning.

The sign X must stand for mathematics in a broad sense, as the science of relation between quantities, one of Berkeley's primary divisions of subject matter. The clue to this fact is in the marginal signs of the two entries:

N.Mo.X.	Truth, three sorts thereof Natural, Mathematical & Moral	676
Mo.N.X.	Three sorts of useful knowlege, . . . Natural Philosophy. . . . Mathematiques. . . . Morality.	853

Over 300 entries have this sign, and the connection of most of them with mathematics, especially geometry, is obvious. Of these about 108 have this sign in conjunction with the numbers 1 or 2 or 3, usually set in an angle of the sign. These all have a special connection with the *Theory of Vision*, and the numbers clearly denote, first, or second, or third part of that work as it was originally planned, viz. distance (1), magnitude

(2), and the heterogeneity of sight and touch (3). Thus, for instance, we find :

$^{1}X^{1}$	In the Barrovian Case etc [the test case for the distance section].	170
$^{2}X^{1}$	Qu: why the Moon appears greatest etc [the test case for the magnitude section].	125
$^{3}X^{1}$	Tangible & visible extension heterogeneous.	70
$^{1}X^{123}$	I saw gladness in his looks . . . so I see figure or Distance. [This comparison occurs under distance (sect. 9–10, 23), under magnitude (65), and, by implication, under heterogeneity (130).]	231

Many other instances can be found, especially of 2 and 3, and a little practice will enable the reader to see by a glance at the marginal sign what entries refer to the *Theory of Vision*, and in what part of that book their equivalent will be found.

The complex symbol 3aX or X3a occurs with ten entries, all of which (and they only) refer to the problem of the inverted retinal image—the test case for situation, which is now the third section. The a in the symbol shows that it was an afterthought, and that the section, as might be gathered from its awkward arrangement, was inserted between magnitude and heterogeneity, the original third section, now the fourth. Thus, for instance we find :

$_{3}\overset{a}{X}_{1}$	Qu: why we see things erect when painted inverted.	126

The stroke which accompanies many of these signs may be a stroke indicating that Berkeley had attended to the entry, or a figure, perhaps indicating the *Theory of Vision* as the first book.

The plus sign + occurs with some 188 entries ; it is frequent in notebook *B* but becomes rare towards the end of *A*. I am inclined to think that Berkeley used it as a sort of *obelus*, setting it against those entries which he found he could not use, whether because (*a*) irrelevant to his final argument, or personal, or trivial, or (*b*) representing discarded views.

Instances of (*a*) are : 1, 2, 5–8, 10, 12, 14–16, 29, 38(?), 42, 65–6, 73, 77, 82, 87, 93–4, 99, 107, 111, 123, 129, 130, 141–4, 147, 151–3, 156–62, 180, 182–3, 186–8, 190–2, 194, 200–2, 207, 209, 215–6, 221, 239, 245, 255, 285, 294, 310, 327, 349, 350, 358, 366, 368, 370–2, 375, 376, 387, 396–9, 402, 409–10, 413, 424–5, 436, 447, 452, 459, 465, 488–9, 495, 502–6, 543, 559, 562, 565, 568, 595, 598, 608, 619, 624–5, 662, 664.

Instances of (*b*) are : 24–5, 41, 44, 52–3, 83, 112, 132–4, 139, 154, 164–5(?), 167, 178, 212, 282, 286(?), 293, 293a, 356, 365, 378 (1, 3, 5, 8, 13–4), 407, 422, 450, 461, 474, 484, 493–4, 496–7, 526, 546, 570, 577, 579–81, 622–3, 637–9, 659, 711, 721. The views discarded are : the definability, mortality, and passivity of the soul, the identification of mind, soul, and will with their contents, the Lockian doctrines of simple ideas, of powers, of all words standing for ideas, and of no knowledge without ideas.

My theory of the plus sign explains 95 per cent. of the occurrences ; but I am not entirely satisfied with it ; for it fails to explain the following entries : 33, 62–3, 85, 95–7, 110, 318, 325, 369, 433, 485, which have the sign but represent views which Berkeley held and continued to hold. There may be some other explanation which would be obvious to us if we knew the exact function of the *Commentaries* and the full part it played in his literary work. In some cases, no doubt, the sign is not the true plus sign, but the figure 1 stroked through ; in 551, for instance, the horizontal stroke is blotted, the vertical not, showing they were made at different times. In 43 Berkeley has erased the plus sign, giving it the appearance of an asterisk.

The asterisk which occurs occasionally refers to a qualifying entry on the facing page.

THE MISCELLANEOUS CONTENTS OF THE MANUSCRIPT[1]

THESE are all contained in notebook *B*. At the one end of the notebook are rules of a College society; at the far end (inverted) the *Cave of Dunmore* essay has been copied in. The positions of the other *miscellanea* can be found by referring to the inventory on page 469 below. Consider first the rules. There are two sets, one long set ('statutes') and one short set, and some writers have seen a connection between the societies which passed the rules and Berkeley's philosophical notes. There is no evidence for any real connection. The society which met on Fridays had wide interests of a scientific type; the Thursday society met to discuss, not immaterialism, but 'the new Philosophy,' *i.e.* the philosophy of the Enlightenment, especially Cartesianism and Locke. The *Commentaries* would not arise out of the work of a society; for it is the record of solitary speculation; in it Berkeley's mind is 'voyaging strange seas of thought alone.' The rules are in the volume, no doubt, for the simple, unromantic reason that at first Berkeley used notebook *B* for the rules and records of College societies, of which he was Secretary; and when those societies ceased to function (as happens with students' societies), or took other books, Berkeley naturally turned *B* over to his private uses.

The *Description of the Cave of Dunmore* was read at a meeting of a College society, and on that account, no doubt, it was copied into the notebook before the notebook ceased to belong to the society.

The other miscellaneous contents of the notebook belong probably to the interval between its society-rule-book period and its adoption for the purposes of the *Philosophical Commentaries*. The twenty-four

[1] See above, p. xvi, and Appendix.

'Queries' which Johnston prints, *extra numerum*, at the outset of his text occupy a leaf between the two sets of rules; they all have to do with Locke's *Essay*; almost certainly they are a copy of 'Quaestiones disputatae ante comitia,' *i.e.* questions propounded by the Procurator (Proctor) to the candidates for Degree, and 'disputed' (debated) by them in the presence of a Moderator. They constitute a *disputatio*;[1] they are what we should now call an examination paper on Locke's *Essay*. They have no connection with immaterialism, nor have they marginal signs; therefore they are not part of the *Philosophical Commentaries*. I have accordingly relegated them to the Appendix (p. 472). Towards the far end of the notebook occur two pages of algebraic equations—rough work for Berkeley's *De Ludo Algebraico*, seven laws and two problems of motion, some blank pages, a few scribbled sermon notes, and the eight philosophical notes printed below in their manuscript position on page 126.

THE DATE AND THE PURPOSE OF THE WORK[2]

Both Fraser and Johnston have made certain statements on the date of the document. I shall not, however, examine their statements here; for they do not appear to have studied the question attentively; nor do they always distinguish between the *Philosophical Commentaries* and the other contents of the volume. They were under the impression that Berkeley spent two or three years upon these notes, beginning them in 1705 or 1706. I hope to show that he wrote them in a shorter period, beginning them in 1707.

To settle the date we must know the opening date and the closing date; and to avoid cross-purposes, I will set out the double question in

[1] Provost Alton suggests to me that the *disputatio*, as an academic exercise, has left its mark on the CPB in the entries, a large number, posed as 'Queries.'

[2] See also my article in *Hermathena*, Vol. XXII, 1932, reprinted in my *Berkeley and Malebranche*, pp. 194*ff*, and my article in *Proceedings of the Royal Irish Academy*, Vol. XLVIII, Section C, No. 7.

precise terms, by asking, When did Berkeley write the first folio, officially (*i.e.* by the British Museum) numbered 104? and, When did he write the last folio, officially numbered 94?

The argument for the opening date depends on the history of notebook *B*. It is virtually certain that before Berkeley began to use the notebook for his philosophical entries, he had used it for the rules and records of one society and for the rules of another society. At one end of the notebook Berkeley has formally recorded the thirty-five 'Statutes' of a society which met on Fridays, and at the far end (inverted) Berkeley has copied in his *Description of the Cave of Dunmore*, which was read at a meeting of that society. The first six folios (MS. 96–101) are occupied with those thirty-five 'statutes' and their date. Immediately after comes a folio containing the *disputatio* (see Appendix, p. 472). Then we reach folio 103, reproduced below with the text, which contains four rules of a society which met on Thursdays; the page is headed by the date, very formally written out, 7th December 1706, obviously written on that date or shortly afterwards. My argument is simply that folio 104 could not have been written before folio 103, and therefore it must have been written after 7th December 1706. I see no way of escape from that conclusion. In all normal notebooks the first page is written first, and the second page second; folio 104 is written *after* 103, and not *before*. If it be urged that this might have been an exceptional case, that Berkeley *might* have left folio 103 blank, *might* have filled folio 104 and subsequent folio with these metaphysical notes, and *might* then have gone back to folio 103 and written in this date and the four rules, I reply that all this is too unnatural a supposition to stand. It is not conceivable that Berkeley could write on folio 104 the series of profound notes on lofty topics, including the revolutionary, 'Time a sensation, therefore onely in y^e^ mind,' and could then go back to folio 103 and record the trivial rule, 'That the Junior begin the conference. . . .'

I am arguing, not only from the anti-climax and the bathos involved in that supposition, but from the obvious and elementary fact that while Berkeley was filling folio 103 and the previous folios the notebook was not *his*, for his private use; it belonged to his society or societies, and Honorary Secretaries do not use official books, while they remain such, for purposes of their private study. Some commentators have imagined a connection between these societies and the philosophical notes, but there is in fact no connection at all (see above, p. xxvii). It was a mere accident that the notebook which began as a society's book of rules and records ended as a receptacle for Berkeley's private study of immaterialism.

So far we have proved that this famous study was not begun till *after* 7th December 1706. When we go on to ask the further question, How soon after that date was it begun? two things must be borne in mind, the Fellowship examination and the time needed for the completion of the work. If we put the opening date too long after December 1706, we shall not leave enough time for the actual writing of the two notebooks. On the other hand if we suppose that he began the work in the winter of 1706–7, or the spring, we are forgetting the facts of Berkeley's situation. During the first half of the year 1707 the statutory Fellowship examination (see below, p. xl) with its exacting course must have monopolized Berkeley's time and attention. With that ordeal impending a work like the *Commentaries*, involving detachment and sustained labour, could not have been undertaken. I hold, therefore, that the work was begun when the examination was successfully over. He was elected Fellow on 9th June 1707, and it is highly probable that he penned folio 104 not long after that date. The Long Vacation of that year would provide the leisure which the inception of such a work would need, and that dating of the opening nicely allows a compact period of twelve or thirteen months for the composition of the work, if my

dating of the last page be correct. We now proceed to consider the closing date.

When did Berkeley write folio 94, the last page of the philosophical entries, and the last page but one of notebook *A*? The latter part of the page is crowded with entries in tiny writing, an indication that Berkeley was finishing off the work. We turn over to folio 95, the last page of the notebook, and we find it headed :

'August 28th 1708 ~~wit~~ the Adventure of the . . .'[1]

There follows an unidentified quotation from 'Clov. B. 7,' which has no philosophical bearing, but reads like an epilogue to a work by an ambitious young educationist. I think that the date, 'August 28th, 1708' is Berkeley's own dating of the completion of the *Commentaries*. If it is not, why is it there? That that date should be there on the last page, and yet have no reference to the philosophical entries, is of course possible, but to my mind highly improbable. We have other reasons for knowing that the work came to an end about that time, and we also know that Berkeley in those days had the habit of dating his literary work precisely ;[2] it would be therefore a strange coincidence if that likely date at the head of the last page has no reference to his work, and is merely the date of some holiday adventure.

Another line of argument points to the same conclusion. The *Draft Introduction* to the *Principles* (published by Fraser in Vol. III of the *Works*, 1901, pp. 357–83) was written, or written out, from 15th November to 18th December 1708. It shows a remarkable dependence on the *Com-*

1 A word of five or six letters which I cannot identify. Fraser read it as 'shirt.'

2 In the *Draft Introduction* to the *Principles* (T.C.D. MS. D. 5.17) Berkeley has dated in the margin the opening, November 15th, 1708, the closing, December 18th, 1708, and each day's work in between. He has also dated his T.C.D. sermon on Life and Immortality, January 11th, 1707–8.

mentaries.[1] We can therefore be certain that the entries up to 748, and virtually certain that the whole of the *Commentaries* (for it has every appearance of being a continuous work), was completed before 15th November of that year. Further, the *Draft*, as we have it, is at a fairly advanced stage, the quotations being written out in italics, and probably its original composition took place some weeks earlier. Thus by two independent lines of argument we have established the conclusion that the *Philosophical Commentaries* was finished in the summer or early autumn of 1708.

There are two internal marks of date worth mentioning.[2] The book, *Some Familiar Letters between Mr Locke and several of his Friends*, published in 1708, is referred to in the entries 709 and 743. Again, the Earl of Pembroke is referred to (as 'P') in 396 as in Ireland and approving Berkeley's 'harangue.' Pembroke was Lord Lieutenant of Ireland from April 1707 to November 1708, and as the King's representative and himself a learned patron of philosophy and science, he would naturally be invited to address the inaugural meeting of a College society, and clearly Berkeley was on the same platform. Thus the above-mentioned publication and Lord Pembroke's Lord Lieutenancy fit in well with the dates which I assign to the composition of the document, *viz*. June or July 1707 to August or September 1708.

We have now to discuss the purpose of the work. For it is a work with a purpose, and the title *Commonplace Book*, conferred by the finder, suggesting, as it does, a vague purpose or absence of purpose, was not a

[1] Striking parallels are, the combination of 642 and 737 on p. 380, also 300 (p. 383), 600 (p. 380), 747 (p. 357), 748 (p. 371). Note also the conceit of the Solitary Man in 566 and other entries, which appears *in extenso* in the *Draft*, pp. 379–80.

[2] It is hardly worth mentioning that in 374 Berkeley speaks of 'Sir Isaac'; Newton was knighted on 15th April 1705; therefore that entry is later than that date.

happy choice. The reader's first impression of the work, especially if he read its entries, as Fraser did, in the wrong order, is of a jumble of random, haphazard notes on this, that, and the other topic; but intelligent familiarity with the work corrects that first impression. Practically all the notes revolve round one central theme, immaterialism. Besides, the very *look* of the manuscript speaks of purpose; the orderly arrangement of the page, the margin, the marginal signs, the spacings, the blank *verso*, the occasional entry on the *verso*, all these features show to the eye that this is no scrap-book of philosophical odds and ends, no casual collection of random jottings. Of course there are exceptions here and there; among the nine hundred notes a few mere 'jottings' will be found; but such are very few, and for the most part the work is sustained and continuous and under the control of a dominant design. Observe, too, the respect with which Berkeley himself treated the work; he has occasion (202) to refer to a previous entry, and he calls it a section; he often corrects his notes, criticizes them, and interprets them; in a word, he treats the work as possessing intrinsic value (see especially 448a, 484a, 615a).

What, then, was the purpose? Why did Berkeley write the *Commentaries*? This question is at once easy to answer and hard; it is easy to answer superficially, hard to answer thoroughly. Berkeley filled the two notebooks as part of the preliminary work of his *Theory of Vision* (1709) and his *Principles* (1710). That answer to our question, so far as it goes, is quite correct, and gives the first piece of necessary information. The purpose of the *Commentaries* was to prepare the way for the publications. Preparatory work for the *Theory of Vision* was done mainly in notebook *B*, for the *Principles* mainly in notebook *A*; but both books are represented in both notebooks. The connection between the *Commentaries* and these publications is far-reaching, and at times close; most sections in both books are indebted, directly or indirectly,

for thought or word, to the work done in the notebooks, as my notes on the entries show. The notebooks were companions of Berkeley's reading and writing; in them he has noted down thoughts, his own and those of others, which were likely to assist his writing; here he records his literary plans, giving himself advice on style and language; here he has noted difficulties in his thesis; here he has hammered out arguments, revised views, examined technique, fixed his terminology, and (towards the end) drafted sections. The *Commentaries* served as Berkeley's storehouse and workshop; the final doctrine of the *Principles* is the fruit of the growth of mind reflected in the pages of these notebooks; for while he was filling them, Berkeley discovered his New Principle (*esse est percipi*), chose the term *idea* for the immediate object, restricted the terms *mind* and *soul* to the active subject, learned to reject abstract ideas, abandoned panpsychism, and accepted the dualism of sense and spirit.

All these changes of doctrine turn on one fixed point, immaterialism; and we may therefore say that the main doctrinal purpose of the *Commentaries* was the examination, exposition, and defence of immaterialism. Berkeley studied vision to show that we do not see matter; he studied knowing to show that we do not perceive matter; he studied physics to show that gravity is not proportional to matter; he studied the mathematical problems to show that there is no infinite divisibility to be ascribed to matter. The broad design of the *Commentaries* was to debate "y^{e} immaterial hypothesis" (19), to examine the arguments for and against it, and to establish the metaphysics, the psychology, and, to a less extent, the ethics and natural philosophy, which flow from it.

So far I have dealt with the question of purpose in general terms, and have been content to prove that Berkeley wrote the *Commentaries* as an aid to writing his *Theory of Vision* and his *Principles*. Now we must look more deeply into the question, and must attempt a more specific

answer; for hitherto the *form* of this strange document has been left unexplained; it is not enough to point out the doctrinal connection between these notebooks and the two great publications, and say that the *Commentaries* was a prelude to the two books. That explanation is true, but inadequate. We have now to assign a more definite aim and object to the work, and must try to show, not only why Berkeley wrote it, but why he wrote it thus. I have a suggestion to make about it. I have a thesis to propound, not startling, but new. I suggest that some little time after his graduation, say in 1705 or 1706, Berkeley wrote in draft a work on immaterialism, now lost, that he was not satisfied with it, and that after his election to Fellowship, in the summer of 1707, he began the *Philosophical Commentaries* largely as a commentary on the text and argument of that draft work.

If this theory be correct, then our document was, not the initial stage (as has hitherto been assumed), but an intermediate stage in the composition of Berkeley's books, and the argument for immaterialism, examined therein, was already to a large extent on paper. The attraction of the theory is that it goes far to explain the form and manner and comparative maturity of the entries, particularly those at the opening of notebook *B*. If Berkeley were just beginning to compose his thoughts on immaterialism it is hard to see how filling page after page of the notebook with these brief, staccato remarks could be of any help to him in his writing; they look exactly like comments on a work already written; they are not like *impromptu* compositions. My words written about entries 17–26 apply also to a much larger number, 'They are not the tentative work of a tyro feeling his way into a strange new theory; they are the observations of a thinker who knows where he is going, because he has been there before; they are marked by relative maturity of thought and sureness of touch; they are not the work of a man who has a big idea and is beginning to write on it, but of one who has already written on

his big idea, is not satisfied with what he has written, and sits down to examine, criticize, sift, and rewrite his first attempts.' [1]

The first sixteen entries, on time and eternity, give strong support to my theory. Can we imagine an intending author sitting down and composing them as material for a book? They are too brief, abrupt, and disconnected to be of use. But they fall into place when viewed as notes and queries on the pith and marrow of an essay already written. Moreover, we have independent evidence that Berkeley did write some such essay on time; for in a letter in 1730 to his American friend, Samuel Johnson, he says, 'One of my earliest inquiries was about time, which led me into several paradoxes that I did not think fit or necessary to publish.' [2] No doubt that inquiry used time as an approach to immaterialism, and argued that if time be a sensation in the mind, the same must be true of space (see *CPB* 13, 18). It is highly probable that the opening entries are Berkeley's comments on that inquiry.

There is evidence that he had written on vision, too, before he began to fill the notebook. It is a natural transition from time to space, and thence to the *sight* of 'external space,' [3] and entries on vision (27, 28) begin very soon after those on time. There are between two and three hundred entries on vision in notebook *B*, and in them all we find Berkeley's theory, if not complete, at any rate at an advanced stage. The study of distance, of magnitude, of situation, of the inverted retinal image, of the heterogeneity of sight and touch, the Barrovian case, the Molyneux Problem, the apparent size of the horizontal moon—in a word, virtually all the main arguments of the *Theory of Vision*, with their illustrative detail, are present in the early part of the *Commentaries*

[1] *Proceedings of the R.I. Academy*, Vol. XLVIII, C. 7, pp. 275–6.

[2] *Fraser* II p. 19. G. A. Johnston, *Development of Berkeley's Philosophy*, p. 22*n*, notices this connection but does not follow it up.

[3] 'The consideration of this difficulty it was that gave birth to my *Essay towards a New Theory of Vision*' (*Princ.* 43).

in fully developed form. That means, I think, that Berkeley must have had a sketch of the actual publication, complete in outline and in detail, in his mind's eye *before* he began to fill the notebooks. I infer that he must also have had it on paper. The new theory of vision is a sustained and intricate argument. Could a man carry it all in his head, unless he had already written it out in draft?

Certain entries, notably 224–7, almost necessitate this conclusion; they clearly postulate an existing composition; they cannot stand alone, and from their very nature they are comments. Take, for example, the following: 'Query whether the sensations of sight arising from a man's head be liker the sensations of touch proceeding from thence, or from his legs' (224). 'What on earth does it mean?' the reader says to himself, and if he succeeds in puzzling out some sense for the first part, the 'or from his legs' restores the dark. That entry is almost nonsense when read by itself; no clear thinker could have made it up and written it out; but read it as a comment on *TV* 101*ff.*, and it becomes not only intelligible, but apposite. Berkeley is discussing the inverted retinal image; he imagines himself looking at a man who is standing on the earth, and he is contrasting the visible head and the visible legs with the corresponding tangible ideas, arguing that the difficulty of the inverted image disappears when you take the visible as a sign of the tangible. The entry is unintelligible apart from the book, and therefore the book, or a draft of it, must have been written before the entry.

I have examined all the entries for evidence *for* or *against* my theory. I find one or two *for* it, and none *against* it. I consider that 265 contains a reference to the hypothetical lost document, and that 209, 300, and 858 may do so.

In 209 Berkeley writes, 'Mem: to correct my Language and make it as Philosophically nice as possible . . .' and in 300, 'I abstain from all flourish & pomp of words & figures, using a great plainness &

simplicity of stile.' These entries may record Berkeley's *intentions* to write in simple style and nice language, but they are read more naturally as the observations of an author who has already written on his theme, who has his essay on the table before him, and is reflecting on its style.

In 265 Berkeley writes, ' ffrom Malbranch, Locke & my first arguings it cant be prov'd that extension is not in matter ffrom Lockes arguings it can't be prov'd that Colours are not in Bodies.' He here expresses dissatisfaction with the Locke-Malbranche distinction between primary and secondary qualities and with his own ' first arguings ' based thereon (cf. *Princ.* 15). Now those ' arguings,' it is almost certain, must have been on paper, like Locke's arguings ; for, if otherwise, there would be little or no point in this formal reference to them. I take this entry to be a radical criticism of the method of his draft work on immaterialism, a criticism of his Old Principle made when he was just coming in sight of his New Principle (see *CPB* 270, 279, 285).

Lastly, we have an entry which certainly refers to a written document, but since it occurs so late in the *Commentaries*, the document referred to might have been begun after the beginning of the *Commentaries*. Berkeley writes (858) : ' I must not pretend to promise much of Demonstration, I must cancell all passages that look like that sort of Pride, that raising of Expectation in my Readers.' Berkeley must have had some written work before him when he penned that entry ; for passages cannot be cancelled unless they are written ; but the best part of a year had elapsed since the *Commentaries* was begun and other works might have been written during the interval, such as the final draft of the *Theory of Vision* or a draft of the *Draft Introduction* to the *Principles* ; we cannot, therefore, be sure that the passages to be cancelled occurred in that document which, on my theory, preceded the *Commentaries* and was the moving cause of its inception. At any rate this entry shows us the

notebook being used as a commentary on *a* written document, and to that extent it lends support to my theory.

That concludes my statement of the evidence. I do not claim that the theory is established beyond *yea* or *nay*; but I think that a strong case for it has been made out. As Berkeley worked on at the *Commentaries* he used it for a variety of literary purposes in preparation for his *Theory of Vision* and his *Principles* (and the other contemplated book or books, see my note on entry 508), but he originally undertook it, I consider, for a well defined purpose, namely, as a critical commentary upon his own early work on immaterialism, now lost—a work which began with a study of time, included a study of vision, and rested the case against matter in the main upon the argument, more or less accepted by Cartesians and Lockians, that the sensible or secondary qualities were 'in the mind.'

THE BIOGRAPHICAL BACKGROUND

BERKELEY graduated B.A. in the spring of 1704 at the age of nineteen. After graduation he stayed on in College, presumably with the object of winning a Fellowship. But no Fellowship fell vacant till 24th September 1706, when Mr. Mullart was nominated to a College living, thereby vacating his Fellowship.[1] From the summer of 1704 to the autumn of 1706 Berkeley must have had plenty of leisure time; for he is not likely to have had any teaching or other College duties. During that period, no doubt, the notion of immaterialism came to him; for he declares in the Preface of the *Principles* (1710) that he makes it public 'after a long and scrupulous inquiry,' and writing to Percival in the same year he says, 'the opinion of matter I have entertained some

[1] See the College Register. Mr. Mullart appears several times in the Locke-Molyneux correspondence. He had been engaged by Molyneux to translate Locke's *Essay* into Latin, but had to suspend the work as soon as a Fellowship examination was announced.

years.'[1] Presumably also during that period he wrote the work on immaterialism which my argument postulates. He would have had little else to do. His *Arithmetica* and *Miscellanea Mathematica* had been in his desk, he tells us, some years before its publication early in 1707. His short paper *Of Infinites* was written in or about 1706; it is a study in infinitesimals, clearly connected in more ways than one with his study of immaterialism.

Mullart's appointment to a living would put an abrupt end to Berkeley's leisure and independent literary pursuits. An election to a Fellowship would at once be announced for the following Trinity Monday, with the severe statutory examination in the previous week, and just as Mullart had had to give up his work for Molyneux in order to prepare for the Fellowship examination, so Berkeley would have had to give all his time and energies to the same task, and to suspend his study of immaterialism.[2]

His election to Fellowship in the summer of 1707 would bring Berkeley a second period of comparative leisure; the new Fellow would have a little teaching to do, but few other academic duties at first. The time was opportune for a resumption of his interrupted study of immaterialism. When he came back to the work his former arguments from the nature of time and the 'in-existence' of secondary or sensible qualities no longer satisfied him, and in order to improve on them, he began the *Commentaries*, I suggest, in the Long Vacation of 1707.[3] Taking from his shelves a discarded notebook (*B*) which six months previously had been used for a society's rules and records, he began to fill its pages with his abridged thoughts on the arguments of his 'first arguings'

[1] *Rand*, p. 83.

[2] *Cf.* 'aliis studiis occupato,' *De Ludo Algebraico*, which was put through the press early in 1707; also the statement on the Fellowship examination in Stock's *Life* of Berkeley, published in 1776, and prefixed to the 1784 edition of the *Works*.

[3] He may have had in mind Malebranche's 'angelic rules' of method (see *De Ludo Algebraico, ad fin.*) and the 'infallible principle' promised by the Oratorian to those who would follow his rules, abridge their thoughts, set them down on paper, and thus enlarge the compass of their minds.

on 'ye immaterial hypothesis.' The effort of analysis cleared up his difficulties and gave him a new insight into the nature of perception. Before he had completed the notebook there flashed on his mind the New Principle, 'the obvious tho' amazing truth' (279) about the nature of existence itself. That discovery, made probably in the winter of 1707–8, gave a new turn to Berkeley's immaterialism, and a new inspiration to his work. Shortly afterwards he began a new notebook (*A*); he filled it along the same lines as *B*; but *A* was more than a continuation of *B*, and represented a new departure in his literary plans. Although the first entry (400) deals with vision, the great majority of the entries on the opening pages show that Berkeley has the *Principles* in view, and is working at a revised argument for immaterialism based on the New Principle. His doctrine of abstract ideas, adumbrated in *B* (318, where see note) takes shape early in *A* (401); gradually he works out in notebook *A* the psychology of spirit, soul, and mind which his new doctrine requires, and sketches the ethics, and touches on the natural philosophy to which immaterialism points. By the late summer of 1708 most of this preliminary work was done; the *New Theory of Vision* must have been at an advanced stage, and the *Principles* (Part I and Part II, and perhaps Part III) roughed out at least in thought. The *Draft Introduction* to the *Principles* was written out in November and December, 1708. The Introduction, as we have it now, and the body of the *Principles*, followed within the next few months.

Now in all this writing and rewriting our manuscript must have been constantly in Berkeley's hands, witness of his intellectual struggles, companion of his search for truth, anvil of his final argument. Therefore, as long as the *New Theory of Vision* and the *Principles of Human Knowledge* are read, so long will the *Philosophical Commentaries* be read, not only for the charm and personal interest of the work, but for the light it throws on the origin and growth of Berkeley's thought.

TABLE OF CONCORDANCE

Showing the pages in Fraser's (1901) edition of the *Philosophical Commentaries* (the *Commonplace Book*) with the corresponding entry numbers in Johnston's edition and this edition

Fraser Page	Johnston Entry	Luce Entry	Fraser Page	Johnston Entry	Luce Entry
7	396–401	400–5	51	819–830	807–818
8	402–410	406–414	52	830–840	818–828
9	411–424	415–427	53	840–849	828–837
10	425–437	428–440	54	850–860	838–848
11	438–447	441–449	55	860–869	848–857
12	447–457	449–458	56	869–882	857–870
13	458–463	459–464	57	883–895	871–883
14	464–470	465–471	58a	896–900	884–888
15	470–475	471–475	58b	1–8	1–8
16	476–484	476–482	59	9–28	9–28
17	485–493	483–491	60	28–45	28–45
18	493–501	491–499	61	45–54	45–54
19	502–515	499a–512	62	55–70	55–70
20	515–522	512–518	63	71–81	71–80
21	521–532	517a–528	64	81–95	80–93
22	532–538	528–533	65	96–107	94–105
23	539–545	534–540	66	108–123	106–121
24	545–556	540–551	67	124–137	122–135
25	556–567	551–562	68	138–155	136–153
26	567–575	562–570	69	156–165	154–163
27	575–586	570–580	70	166–179	164–176a
28	586–594	580–588	71	179–192	176a–187
29	594–605	588–599	72	193–206	188–200
30	605–616	599–610	73	206–216	200–208
31	616–631	610–622	74	216–229	208–220
32	632–645	623–636	75	229–236	220–227
33	645–652	636–643	76	237–250	228–241
34	652–662	643–653	77	251–262	242–253
35	663–672	654–662	78	262–271	253–262
36	673–680	663–670	79	271–283	262–275
37	681–690	671–679	80	284–291	276–283
38	691–700	680–688	81	292–302	284–293
39	700–707	688–695	82	302–309	293–299
40	708–715	696–703	83	309–319	299–308
41	716–727	704–715	84	320–330	309–318
42	728–735	716–723	85	331–347	319–335
43	736–743	724–731	86	348–356	336–343
44	743–755	731–742	87	357–374	344–359
45	756–763	743–750	88	375–389	360–368
46	763–775	750–762	89a	389–394	368–371
47	776–790	763–777	89b	904–914	378
48	790–799	777–786	90	915–928	378–384
49	800–809	787–797	91	929–942	385–396
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Philosophical Commentaries

The Text

Notebook B

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[This page (MS. *folio* 103) immediately precedes the first page of the *Philosophical Commentaries* in notebook *B*. It is reproduced here to show the date, 7th December 1706, which fixes a *terminus a quo* for the opening date of the work.]

December the Seventh in the year one thousand seven hundred and Six, Agreed

That we the under-written persons do meet on every Thursday at five of the clock in the evening.

That the buisiness of our meeting be to discourse on some part of the new Philosophy.

That the Junior begin the conference, the second Junior speak next & so on.

That at the close of every Conference, we appoint a subject for the ~~weekly~~ following.

Accedat huc Suavitas quaedam oportet Sermonum atque morum haudquaquam mediocre condimentum amicitiae. Cicero de Amicitia 13 c. Math v 22 & 30

+	One eternity greater than another of yᵉ same kind.	1
+	In wᶜʰ sense eternity may be limited.	2
G.T	Whether succession of ideas in yᵉ divine intellect ?	3
T	Time train of ideas succeeding each other.	4
+	Duration not distinguish'd from existence.	5
+	Succession explain'd by before, between, after, & numbering.	6
+	Why time in pain, longer than time in pleasure ?	7
+	Duration infinitely divisible, time not so.	8
T	The same τo νυν not common to all intelligences.	9
+	Time thought infinitely divisible on account of its' measure.	10
12 ×	Extension not infinitely divisible in one sense.	11
+	Revolutions immediately measure train of ideas, mediately duration.	12
T	Time a sensation, therefore onely in yᵉ mind.	13
+	Eternity is onely a train of innumerable ideas. hence the immortality of yᵉ Soul easily conceiv'd. or rather the immortality of the person, yᵗ of yᵉ soul not being necessary for ought we can see.	14

or invisible length 21a

+	Swiftness of ideas compar'd with y^{t} of motion shews the wisdom of God.	15
+	W^{t} if succession of ideas were swifter, w^{t} if slower ?	16
M	ffall of Adam, rise of Idolatry, rise of Epicurism & Hobbism dispute about divisibility of matter &c expounded by material substances	17
~~M~~ ×	Extension a sensation, therefore not without the mind.	18
M ~~S~~	In y^{e} immaterial hypothesis the wall is white, fire hot etc	19
1 ~~P~~	Primary ideas prov'd not to exist in matter, after the same manner y^{t} secondary ones are prov^{d} not to exist therein.	20
×	Demonstrations of the infinite divisibility of extension suppose length without breadth ∧ w^{ch} is absurd.	21
1 M	World wthout thought is nec quid nec quantum nec quale etc	22
M	'tis wondrous to contemplate y^{e} world empty'd of intelligences.	23
+	Nothing properly but persons ~~do exist~~ i.e conscious things do exist, all other things are not so much existences as manners of y^{e} existence of persons.	24
+	Qu: about the Soul or (rather ∧) person whether it be not compleatly known.	25
×	Infinite divisibility of extension does suppose y^{e} external existence of [redacted] extension but the later is false, ergo y^{e} former also.	26
13 ×	Qu: Blind man made to see would he know motion at 1st sight.	27

M[1] or rather in a thing void of perception. Thought seeming to imply action. 37[a]

Motion, figure & extension perceivable by sight 28
13× are different from those ideas perceived by touch
wch goe by the same name.

\+ Diagonal incommensurable wth yᵉ side 29
Quaere how this can be in my doctrine ?

N Qu: how to reconcile Newtons 2 sorts 30
of motion wth my doctrine.

× Terminations of surfaces and lines not 31
~~compleat positive ideas.~~ imaginable per se.

13× Molyneux's Blind man would not know 32
be
the sphere or cube to ʌ bodies or extended at
first sight.

+S Extension so far from being incompatible wth 33
yt 'tis impossible it should exist without thought.

Extension it self or anything extended cannot 34
M.S. think these being meer ideas or sensations whose
essence we throughly know

13× No extension but ~~yt of~~ surface perceivable 35
by sight.

Wᵉ we imagine 2 bowls v.g. moving in 36
■ 11M.S vacuo, 'tis onely conceiving a person affected wth
those sensations.

1M.S Extension to exist in a thoughtless thing ʌ is a 37
contradiction.

+	Qu: if visible motion be proportional to tangible motion	38
T	In some dreams succession of ideas swifter than at other times.	39
[1]M	If a piece of matter have extension y^{t} must be determin'd to a particular bigness & figure, but etc.	40
+	Nothing corresponds to our primary ideas wthout but powers, hence a direct & brief demonstration of an active powerfull being distinct from us on whom we depend, etc.	41
+	The name of colours actually given to tangible qualitys by the relation of y^{e} story of y^{e} German Count.	42
[13] X *†	Qu: how came visible & tangible qualitys by the same name in all languages ?	43
+	Qu: whether being might not be the substance of y^{e} soul. or (~~w^{ch} is~~ — otherwise thus) whether being added to y^{e} faculties compleat the real essence and adequate definition of the soul ?	44

N M.N. Qu: whether on the supposition of ∧ external Bodies it be possible for us to know ~~wheth~~ that any Body is absolutely at rest, since that supposing ideas much slower than at present bodies now apparently moving would then be apparently at rest. 45

M S Qu: wt can be like a sensation but a sensation ? 46

M S Qu: Did ever any man see any ∧ other things besides his own ideas, that he should compare them to these & make these like unto them ? 47

T [redacted] The age of a fly for ought that we know may be as long as yt of a man. 48

31X Visible distance heterogeneous from tangible distance demonstrated 3 several ways 49

31X 1st if a tangible inch be equal or in any other reason to a visible inch, thence it will follow yt unequals are equals wch is absurd. for at wt distance would the visible inch be placed to make it ~~like~~ equal to the tangible inch ?

31X 2d One made to see yt had not yet seen his own limbs or anything he touch'd, upon sight of a foot length would know it to be a foot length if tangible foot & visible foot were the same idea, sed falsum id ergo & hoc.

31X· 3dly from Molyneux's problem wch otherwise is falsely solvd by Locke & him.

Succession is an abstract *i e.* an unconceivable idea. 53a

as also the constant perception 57a
of 'em

1~~S~~M	Nothing but ideas perceivable.	50
~~M~~ ~~S~~	A man cannot compare 2 things together without perceiving them each, ergo he cannot say any thing wch is not an idea is like or unlike an idea.	51
~~M~~+	Bodies etc do exist even wn not perceiv'd they being powers in the active Being.	52
+	Succession a simple idea ∧ Locke cap. 7.	53
31X	Visible extension [is proportional to tangible extension, also] is encreas'd & diminish'd by parts, hence taken for the same.	54
X~~S~~	If extension be without the mind in bodies abstractible or qu: whether tangible or visible or ∧ both.	55
1X	Mathematical propositions about extension & motion true in a double sense.	56
~~M.S~~	Extension thought peculiarly inert because not accompany'd wth pleasure & pain ; hence thought to exist in.matter as also for yt it was conceiv'd common to 2 senses.	57
11X.	Blind at 1st sight could not tell how near wt he saw was to him, nor even whether it be without him or in his eye. Qu: would he not think yt later.	58

3X1	Blind at 1st sight could not know yt wt he saw was extended, untill he had seen & touch'd some one self same thing. Not knowing how minimum tangibile would look.	59
M.	Homogeneous particles Mem: yt ~~Homoeomeries~~ be brought in to answer the objection of Gods creating sun, plants etc before animals.	60
X	In every Bodie 2 infinite series of extension the one of tangible the other of visible.	61
+	All things to a Blind at 1st seen in a point.	62
+	Ignorance of Glasses made men think extension to be in bodies.	63
M	Homogeneous portions of matter ~~Homoeomeries~~ usefull to contemplate them	64
+	Extension if in matter changes its relation wth minimum visibile wch seems to be fixt.	65
+	Qu: whether m.v. be fix'd.	66
1M.	Each particle of matter if extended must be infor have an infinite series of extension. initly extended.	67
1M	If the world be granted to consist of matter tis the mind gives it beauty & proportion.	68
3X1	Wt I have said onely proves there is no proportion at all times & in all men between a visible & tangible inch v.g.	69

¹X¹ Tangible & visible extension heterogeneous because they have no common measure : also because their simplest, constituent parts or elements are specifically distinct viz. punctum visibile & tangibile. N.B. The former seems to be no good reason. 70

M : N. By immateriality is solv'd the cohesion of bodies, or rather the dispute ceases. 71

X Our idea ~~of~~ we call extension neither way capable of infinity. i.e. neither infinitely small or great. 72

+ Greatest possible extension seen under an angle wch must be less than 180 degrees ; the legs of wch angle proceed from the ends of the extension. 73

S M Allowing there be extended solid etc substances without the mind tis impossible the mind should know or perceive them. the mind even according to ye materialists perceiving onely the impressions made upon its brain or rather the ideas attending those impressions. 74

X Unite in abstracto not at all divisible it being as it were or wth Barrow nothing at all a point A. in concreto not divisible ad infinitum there being no one idea diminishable ad infinitum. 75

M ¹ Any subject can have of each sort of primary qualities but one particular at once. Locke b.4. c 3.S.15. 76

visible

3X1 Why may not I say ∧ extension is a continuity of visible points 78a
tangible extension is a Continuity of tangible points.

\+ Qu: whether we have clear ideas of large numbers themselves, or onely of their relations. 77

Of solidity see L.b 2.c.4S.1.S.5 S.6. If any one ask 78
1M wt solidity is let him put a flint between his hands & he will know. Extension of Body is continuity of solid etc, extension of space is continuity of unsolid etc.

M Mem. that I take notice that I do not fall in wth Sceptics 79
certainly
Fardella etc, in yt I make bodies to exist ~~without us,~~ wch they doubt of.

I am more certain of ye existence & reality of Bo- 80
M dies than [redacted] Mr Locke since he pretends onely to wt he calls sensitive knowlege, whereas I think I have demonstrative knowlege of their Existence, by them meaning combinations of powers in an unknown substratum.

S Our ideas we call figure & extension not images of the figure 81
M & extension of matter, these (if such there be) being infinitely divisible, those not so.

\+ Tis impossible a Material cube should exist, because the 82
will
edges of a Cube ~~can~~ appear broad to an acute sense.

+ Men die or are in state of annihilation ~~severall times~~ oft in a day. 83

S Powers Quaere whether more or one onely ? 84

+ Lengths abstract from ∧ breadths are the work of the mind, such do intersect in a point at all angles, after the same way 85
~~extens~~ colour is abstract from ~~of~~ extension.
every position alters the line

X Quaere, whether ideas of extension are made up of other ideas v.g. idea of a foot made up of severall ideas of an inch etc ? 86

The idea of an inch length not one determin'd idea 87
+ Hence enquire the reason why we are out in judging of extension by the sight, for wch purpose 'tis meet also to consider the frequent & sudden changes of extension, by position.

²X¹ No stated ideas of length without a minimum 88

M S ~~Sub~~ Material substance banter'd by Locke b.2 c.13 S.19 89

M S In my doctrine all absurditys from infinite space etc cease. 90

* Qu: whether if ∧ (speaking grosly) the things we see were all of them 91
²³X¹ at all times too small to be felt ∧ ▬ we should have confounded tangible & visible extension & figure ?

Qu: whether if succession of ideas in the Eternal mind, a day 92
T does not seem to God a 1000 years rather than a 1000 years
a day ?

\+ But one only Colour & its' degrees. 93

\+ Enquiry about a grand mistake in writers of Dioptricks 94
in assigning the cause of Microscopes magnifying objects.

\+ Qu: whether a blind made to see would at 1st ~~call his~~ 95
give the name of distance to any idea intromitted by sight
× since he would take distance yt he had perceiv'd by touch
to be something existing without his mind, but he would cer-
no
tainly think that ~~every~~ thing seen was ~~not~~ without his mind.

S Space w*th*out any bodies being in rerum natura, would not be 96
extended as not having parts in that parts are assigned to it w*th*
\+ respect to body ▬ from whence also the notion of distance
or mind
is taken, now without either parts or distance ʌ how can
there be space or anything beside one uniform no
thing ?

not take
\+ Two demonstrations that blind made to see would ~~think~~ 97
all things he saw to be without his mind or not in
× a point, ye one from microscopic eyes, the other
from not perceiving distance i.e. radius of the visual
sphere.

The Trees are in the Park, that is, whether I will or no whe- 98
M ther I imagine any thing about them or no, let me but go thither
& open my Eyes by day & I shall not avoid seeing them.

\+ Tho swiftness or slowness of motion depends on our ideas it does not therefore follow, that the same force can ■ impell a body over a greater or less space in proportion to ~~swifness~~ or slowness or swiftness of our ideas. 99

By extension blind would mean either the perception caused in his touch by something he calls extended, or else the power of raising that perception, wch power is without in the thing term'd extended. Now he could not ∧ know either of these to be visible in things ■■■■■ till he had try'd. 100

3X1

X Geometry seems to have for its object tangible extension, figures & motion† & not visible. 101

a 3X1 The reason explain'd why we see things erect their images being inverted in the eye. 102

A man will say ∧ a body will seem as big as before, tho the visible idea it yields be less than wt it was therefore the bigness or tangible extension of the body is different from the visible extension 103

32X1

Number not without the mind in any thing, because tis the mind by considering things as one that makes complex ideas of 'em tis the mind combines into one, wch by otherwise considering its ideas might make a score of wt was but one just now. 104

X

X The Mob use not the word Extension tis an abstract term of the Schools. 111a

× Extension or space ʌ no simple idea, length, breadth & solidity being three severall ideas. 105

³×¹ Depth or solidity nor perceiv'd by sight. 106

+ Strange impotence of men. Man without God. Wretcheder than a stone or tree, he having onely the ~~will~~ power to be miserable by his unperformed wills, these having no power at all 107

Length, perceivable by hearing, length & 108
⋇ breadth by sight, Length breadth & depth by touch.

G S Wt affects us must be a thinking thing for wt thinks not cannot subsist. 109
~~affects us~~

+ Number not in bodies it being the creature of the mind depending entirely on its' consideration & being more or less as the mind pleases. 110

+¹ Mem: Quaere whether extension be equally a sensation with colour ? 111

S Round figure a perception or sensation in the mind but 112
P+ in the body is a power L.b 2.c.8 S.8.

Mem : mark well the later part of the last cited Section. 113

$^{3}X^{1}$	or any other tangible things Solids ∧ are no otherwise seen than colours felt by the German Count	114
M S	Of & thing causes of mistake	115
$^{2}X^{1}$	The visible point of he who has microscopical eyes will not be greater or less than mine.	116
X	Qu : whether the propositions & even axioms of Geometry do not divers of them suppose the existence of lines etc without the mind.	117
T	Whether motion be the measure of Duration See Locke. b.2 c.14 S.19	118
X	Lines & points conceiv'd as terminations different ideas from these † conceiv'd absolutely.	119
X	Every position alters a line.	120
X S	Blind at 1st would not take colours to be without his mind, but colours would seem to be in the same place with the colour'd extension, therefore extension would not seem to be without the mind.	121
$^{2}X^{1}$	All visible concentric circles whereof the eye is the center are absolutely equall.	122

+	Infinite number why absurd. not rightly solv'd by Locke.	123
$^{3}X^{1}$	Qu: how tis possible we should see flats or right lines.	124
$^{2}X^{1}$	Qu: why ~~we~~ the Moon appears greatest in the Horizon ?	125
a $^{3}X^{1}$	Qu: why we see things erect when painted inverted.	126
T	Question put by Mr Deering touching the thief & paradise.	127
M^{1} S	Matter tho' allow'd to exist may be no greater than a pin's head.	128
+	Motion is proportionable to space describ'd in given time.	129
+	Velocity not proportionable to Space describ'd in given time.	130
M^{1}	No active power but the will, therefore matter if it exists affects us not.	131

Magnitude when barely taken for the ratio 132
\+ partium extra partes or rather for ~~the~~
coexistence & succession without considering the parts
coexisting & succeeding, is infinitely or rather
or not at all perhaps
indefinitely ʌ divisible because it is it self infinite
or indefinite, but definite, determin'd magnitudes
■ i.e. lines or surfaces consisting of points, whereby ~~they~~
(together w*th* distance & position) they are determin'd, are
resoluble into those points.

\+ Again, magnitude taken for coexistence and succession 133
[ar] †
is not ʌ all divisible but is one simple idea.

\+ Simple ideas include no parts nor relations, hardly 134
separated & considered in themselves, not yet rightly singl'd
red
by any Authour. instance in power, ~~colour~~ extension etc

~~S~~ Space not imaginable by any idea receiv'd from 135
sight, not imaginable, ~~by~~ without body moving
M not even then necessarily existing (I speak of infinite Space)
for w*t* the body has past may be conceiv'd anni-
hilated.

M S*t* Qu: w*t* can we see beside colours, w*t* can 136
we feel beside, hard, soft cold warm pleasure pain

$^{3}X^{1}$	Qu : why not taste & smell extension ?	137
$^{3}X^{1}$	Qu: why not tangible & visible extensions ~~call'd~~ thought hetero-geneous extensions, so well as gustable & olfactible perceptions thought heterogeneous perceptions. or at least why not as heterogeneous as blue & red ?	138
+	Preliminary discourse about ~~sorting~~ singling & abstracting, simple ideas.	139
$^{2}X^{1}$	Moon wn Horizontal does not appear bigger as to visible extension than at other times, hence difficulties & disputes about A equal Angles etc things seen under cease.	140
+	All Potentiae alike indifferent.	141
+	A.B. wt does he mean by his potentias, is it the will, desire, person or all or neither, or sometimes one sometimes t'other.	142
+	No agent can be conceiv'd indifferent as to pain or pleasure,	143
+	We do not properly speaking A make objects more or less pleasant, but the laws of Nature do that. in a strict philosophical sense	144

* This true on supposition that uneasiness deter- 145a
S.Mo. mines the Will.

* Mo.S — A finite intelligence might have ~~sens~~ foreseen 4 thousand years agoe ~~every~~ the place & circumstances, even the most minute & trivial of my present existence. — 145

* S.Mo. — Doctrines of liberty, prescience etc explain'd by Billiard balls. — 146

\+ — W[t] should we think of an object plac'd as in the difficulty if we saw it clearly ? — 147

a ³X¹ — W[t] judgement would he make of uppermost & lowermost who had always seen thro' an inverting glass. — 148

S.Mo. — According to Locke we have not liberty as to vertue & vice, the Liberty he allows consisting in an Indifferency of the operative Faculties, w[ch] consecutive to the will, but virtue & vice consist in the will ergo etc. — 149

All lines subtending the same optic angle congru- 150
$^{3}\times^{r}$ unt (as is evident by an easy experiment) therefore they are equal.

\+ We have not pure, simple ideas of blue, red 151
or any other colour (except perhaps black) because all bodies reflect heterogeneal light.

\+ Qu : whether this be true as to sounds (& other 152
sensations) there being, perhaps, Rays of air wch will onely exhibit one particular sound, as rays of light one particular colour.

\+ Colours not definable, not because they are 153
easily pure, unmixt thoughts, but because we cannot
∧ distinguish & separate the thoughts they include, or because we want names for their component ideas.

\+ ■ By Soul is meant onely a Complex idea 154
made up of existence, willing & perception in a large sense. therefore its is known & it may be defin'd

S We cannot possibly conceive any active power 155
but the Will.

\+ In moral matters Men think (tis true) that they are free, but this freedom is only the freedom of doing as they please, wch freedom is consecutive to the Will, respecting onely the operative faculties. 156

\+ Men impute their actions to themselves because they will'd them & that not out of ignorance but whereas they knew the consequences, of them whether good or bad. 157

\+ This does not prove men to be indifferent in respect of desiring [redacted]. 158

\+ If any thing is meant by the po tentia of A.B. it must be desire. but I appeal to any man if his desire be indifferent, or (to speak more to the purpose) whether he himself be indifferent in respect of wt he desires, ~~before~~ till after he has ~~chosen it~~ desir'd it. for as for desire it self or the faculty of desiring that is indifferent as all other faculties are. 159

\+ Actions leading to heaven are in my power if I will them, therefore I will will them. 160

\+ Qu: concerning the progression of wills in infinitum. 161

\+ Herein Mathematiques have the advantage over Metaphysiques & Morality. Their Definitions being of words not yet known to yᵉ Learner are not Disputed, but words in Metaphisiques & Morality being mostly known to all the definitions of them may chance to be controverted. 162

The short jejune way in Mathematiques 163
\+ will not do in Metaphysiques & Ethiques, for
yᵗ about Mathematical propositions men have no
M prejudices, no anticipated opinions to be encounter'd, they not having yet thought on such matters. tis not so in the other 2 mention'd sciences, a man must not onely demonstrate the truth, he must also vindicate it against scruples & establish'd opinions wᶜʰ contradict it. In short the dry strigose rigid way will not suffice.

he

he must be more ample & copious, else his
demonstration tho never so exact will not go down w*th*
most.

Extension seems to consist in variety of homo- 164
+S geneal thoughts coexisting without mixture.

visible
or rather ∧ extension seems to be the coexistence 165
+S of colours in y*e* mind.

depend on
Enquiring & judging are actions w*ch* ~~require~~ the 166
operative faculties w*ch* ~~require~~ depend on y*e* will
S.Mo w*ch* is determin'd by some uneasiness ergo etc-

which is finite
Suppose an agent ∧ perfectly indifferent, & as to
desiring not determin'd by any prospect or con-
sideration of good I say, this Agent cannot
do an action morally Good. Hence 'tis evident
the suppositions of A:B: are insignificant.

Number
\+ Extension, motion, time ∧ no simple ideas, but 167
include succession in them w*ch* seems to be a sim-
ple idea.

× Mem: to enquire into the angle of Contact. 168
& into fluxions etc.

The sphere of vision is equal whether I look onely in 169
²X¹ my hand, or on the open firmament. for 1st in both
cases the Retina is full. 2d. the Radius's of both spheres are
equall or rather nothing at all to ye sight 3dly equall
number of points in one & t'other.

¹X¹ In the Barrovian Case purblind would judge aright 170

+X¹ Why the Horizontal Moon greater ? 171

+X¹ Why objects seen erect ? 172

N To wt purpose certain figure & texture connect- 173
ed wth other perceptions ?

Men estimate magnitudes, both by angles 174
²X¹ & distance. Blind at 1st could not know dis-
tance, or by pure sight abstracting from
experience of connexion of sight & tangible ideas
we can't perceive distance. therefore by pure
sight we cannot perceive or judge of extension :

²X¹ Qu: whether it be possible to enlarge our sight 175
or more points
or make us see at once more ∧ than we do by ~~enlarging~~
diminishing the punctum visibile below 30″ ?

have
The grand Mistake is that we think we ∧ Ideas of 176a
S the Operations of our Minds. certainly this Metaphorical
dress is an argument we have not.

G omnes reales rerum proprietates continentur in Deo wt 177a
means Le Clerc &c by this ?

Speech metaphorical more than we imagine 176
insensible things & their modes circumst-
I.S. ances &c being exprest for ye most part by
words borrow'd from things sensible. the
reason's plain. Hence Manyfold
Mistakes.

Qu: How can our idea of God be 177
or
G complex ~~&~~ compounded, wⁿ his essence his

simple & uncompounded v. Locke b.2.S 35

\+ The impossibility of defining or discoursing 178
clearly of most things proceeds from the fault
& scantiness of language, as much, perhaps, as
from obscurity & confusions of Thought. Hence
I may clearly & fully understand my own Soul
extension, etc & not be able to define them !

* The substance wood a collection of sim- 179
M S ple ideas see Locke B.2 C.26. S.1.

Colours in ye dark do exist really *i.e* were there light 185a
M.P or as soon as light comes we shall see them provided we
open our eyes. & that whether we will or no.

+	Mem : concerning strait lines seen to look at them thro' an orbicular Lattice.	180
$^{2}X^{1}$	Qu : whether possible that those visible ideas wch are now connected with greater extensions could have been connected with lesser extensions. there seeming to be no necessary connexion between those thoughts.	181
+X	Speculums seem to diminish or enlarge objets not by altering the optique angle but by altering the Apparent distance.	182
+	Hence Qu : if blind would think things diminish'd by convexes, or enlarged by concaves ?	183
P.N.	Motion not one idea, it cannot be perceiv'd at once.	184
M.P.	Mem : to allow existence to colours in the dark, persons not thinking &c but not an absolute actual existence. 'Tis prudent to correct mens mistakes without altering their language. This makes truth glide into their souls insensibly.	185

~~where there is no difference intrinseeal or extrinsical of a moment~~ 1922

⧺	~~How the Retina is fill'd by a Looking glass~~ finite substances must	~~186~~
+	Convex speculums have the same effect wth concave glasses.	187
+	Qu: whether concave speculums have the same effect wth Convex glasses ?	188
	The reason why convex speculums diminish &	189
2X1	concave magnify not yet ▬ fully assign'd by any writer I know. le op-	195
+	Qu: why not objects seen confus'd when yt they seem inverted thro a convex lens ?	190 196
	Qu: how to make a glass or speculum	191
+	which shall magnify or diminish by altering the distance without altering the angle ?	197
+	~~No identity in any individuals besides persons.~~	192
N.	~~As well make sweet tastes, smells, fear, shame etc~~	193
	~~move~~ wit, vertue, vice ∧ move wth Local motion as immaterial spirit.	
	Glasses or speculums may ∧ magnify or lessen	198
2X1	without alterng the Optique but to no purpose.	

S Qu: Whether Identity of Person consists not in the Will 194a

+ On account of my doctrine the identity of ∧ (finite) substances must consist in something else than continued existence, or relation to determin'd ∧ (time) and place of beginning to exist. the existence of our ~~ideas~~ (wch ∧ (thoughts being combin'd) make up substances) being frequently interrupted, & they having divers beginnings, & endings. 194

No necessary connexion between great or little optique angles & great or little extension. 195 ²X¹

Distance is not perceiv'd, optique angles are not perceiv'd. how then is extension perceiv'd by sight ? 196 ²X¹

Apparent magnitude of a line is not simply as the Optique angle, but directly as the Optique angle, & reciprocally as the confusion etc (i.e the other sensations or want of sensation that attend near vision) hence great mistakes in assigning the magnifying power of glasses. vid : Moly : p. 182. 197 ²X¹

Glasses or speculums may ∧ (perhaps) magnify or lessen without altering the Optique ∧ (angle) but to no purpose. 198 ²X¹

Qu: whether Purblind would think objects 199
²X¹ so much diminish'd by a convex speculum
■ as another ?

\+ Qu: wherein consists identity of Persons ? not in ac- 200
tual consciousness, for then I'm not the same
person I was this day twelvemonth, but while
I think of wt I then did. Not in potential
for then all persons may be the same
for ought we know.

\+ Mem : story of Mr Deering's Aunt. 201

\+ two sorts of Potential consciousnesses 202
Natural & praeternatural in the last § but
one I mean the latter.

meant
If by magnitude be ʌ the proportion any thing bears to 203
²X¹ a determin'd tangible extension as inch, foot etc this 'tis plain
cannot be properly & ~~in~~ per se perceiv'd by sight. & as for
determin'd visible inches, feet etc there can be no such
thing obtain'd by the meer act of seeing abstracted from
experience etc.

The greatness per se perceivable of the sight, is onely 204
²X¹ the proportion any ~~thing bears vis~~ visible appearance
bears to the others seen at the same time ; or ~~the~~ (wch
is the same thing) the proportion of any particular
part of the visual orb to the whole. but mark that
it
we perceive not ~~there~~ is an orb, any more than a plain
but by reasoning.
This is all the greatness the pictures have per se.

meerly
Hereby ʌ man cannot ~~absolut~~ at all judge of the ex- 205
²X¹ tension of any object, it not availing to know the
object makes such a part of a sphaerical surface
except we also know the greatness of sphaerical
may
surface. for a point ~~make~~ subtend the same angle
wth a mile & so create as great an image in the
Retina, i.e take up as much of the Orb.

Men judge of magnitude by faintness & vigo- 206
wth some other circumstances
²X¹ rousness, by distinctness & confusion, ʌ by ~~little &~~ great
little
& angles. Hence 'tis plain the ideas of sight wch are now
might
connected with greatness, ~~may~~ have been connected wth smal-
ness & vice versâ. there being no necessary reason why great
angle † faintness & distinctness without straining sould
stand for ~~greatness~~ great extension, any more than than
ness
a ~~small a~~ great angle, vigorous ʌ & confusion.

My end is not to deliver ~~Genera~~ Metaphysiques (altogether) in a General 207

+ Scholastique way but (in some measure) to accommodate them to the Sciences, & shew how they may be usefull in Optiques, Geometry &c.

Qu: whether per se proportion of visible magni- 208

²X¹ tudes ■ be perceivable by sight. this is put on account of distinctness & confusedness the act of perception seeming to be as great in viewing any point of the visual orb distinctly as in viewing the whole confusedly.

+ Mem: to correct my Language & make (it) as 209
Philosophically nice as possible to avoid giving handle.

If ■ men could without straining alter the 210

²X¹ convexity of their Crystallines they might magnify or diminish the apparent diameters of ~~bodies~~ objects ~~without~~ the same optic angle remaining.

²X¹ The bigness (in one sense) of the pictures in the fund is not 211
determin'd, for the nearer a man views them, ~~they~~ (the images of them) (as well as other objects) will ~~make~~ take up the greater room in the fund of his eye.

\+ Mem: Introduction to contain the design of the whole the nature & manner of demonstrating &c. 212

Two sorts of bigness accurately to be distinguish'd 213
$^{2}X^{1}$ they being perfectly & Toto Coelo different. the one the proportion that any one appearance has to the sum of appearances perceiv'd at the same time wth it, wch is proportional to angles or ~~rather~~ if a surface to segments of sphærical surfaces, the other is tangible bigness.

Qu : wt would happen if the sphærae of the 214
$^{2}X^{1}$ Retina were enlarg'd or diminish'd ?

We think by ~~meer sight~~ the meer act of vision 215
X+ we perceive ~~surface~~ distance from us, yet we do not, ~~We think~~ also that we perceive solids yet we do not, also ~~that~~ the iniquality of things seen under the same angle, yet we do not. Why may I not add ? we think we see extension by meer vision, yet we do not.

X+ Extension seems to be perceiv'd by the eye as 216 thoughts by the ear.

Distance

X We seem to have clear & distinct ideas of large numbers 217
v.g. 1000 no otherwise than by considering 'em as form'd by
the multiplying of small numbers.

As long as the same angle determines the minimum 218
²X¹ visibile to two persons, no different conformation of the
Eye can make a different appearance of magnitude in
the same thing. But it being possible to try the
Angle, we may certainly know whether the same thing
appears differently big to 2 persons on account of
their Eyes.

If a man could see " objects would appear 219
²X¹ larger to him than to another : hence there is ano-
ther sort of purely ʌ visible magnitude beside the proportion
any appearance bears to the Visual sphere, viz. its pro-
portion to the m.v.

¹ ³ Were there but one & the same Language in 220
the World, & did children speak it naturally as soon
X as born, & were it not in the Power of men to conceal
their thoughts or deceive others but that there were an
inseparable connexion between words and thoughts, so yt
posito uno ponitur alterum by the Laws of Nature. Qu:
would not men think they heard thoughts as much as that they see
[extension]. †

\+ All our ideas are adæquate, our knowlege of the Laws of nature is not perfect & adæquate. 221

M.P. S Men are in the right in judging their simple ideas to be in the things themselves, certainly Heat & colour is as much without the mind as figure, motion, time etc 222

We know many things wch we want words to express. Great things discoverable upon this Principle, for want of considering wch divers men have run into sundry mistakes endeavouring to set forth their knowlege by sounds, wch ~~seeming difficult~~ foundering them they thought the defect was in their knowlege wn in truth it was in their Language. 223

a 3X1 Query whether the sensations of sight arising from a man's head be liker the sensations of touch proceeding from thence or from his legs ? 224

a 3X1 Or is ~~it~~ ʌ onely ~~constant & long~~ the ʌ association of ideas entirely different that makes me judge them the same ? 225

a Wt I see is onely variety of colours & light. wt I feel 226
1X3 is hard or soft, hot or cold, rough or smooth &c. wt
resemblance have these thoughts with those ?

A picture painted wth great variety of colours affects 227
a the touch in ~~the~~ one uniform manner. I cannot therefore
13X conclude that because I see 2 I shall feel 2, because
I see angles or inequalitys I shall feel angles or
inequalitys. How therefore can I before experience teaches
me know that the visible leggs are (because 2) con-
nected wth the tangible ones, or the visible head (because
one) connected wth the tangible head ?

1M All things by us conceivable are 1st thoughts 2dly powe- 228
cause
S rs to receive ~~these~~ thoughts, 3dly powers to ~~occasion~~ thoughts
neither of all wch can possibly exist ~~without~~ ~~the~~ in an
inert, senseless thing.

seen
An object wthout a glass may be ʌ under as great 229
1X2 an angle as wth a glass. a glass therefore does not
magnify the appearance by the angle.

ideas being inert, thoughtless
S Absurd that men should know the soul by idea ʌ, Hence Mal- 230.
branch confuted.

$^{1}X^{1}$ ^{23} I saw gladness in his looks, I saw shame in his face so I see figure. or Distance 231

$^{1}X^{2}$ Qu: why things seen confusedly thro a convex glass are not magnify'd ? 232

$^{1}X^{2}$ Tho we should judge the Horizontal Moon to be more distant, why should we therefore judge her to be greater what Connexion betwixt, the same Angle, ~~wider dist~~ farther distant & greaterness ? 233

N My Doctrine affects the Essences of the Corpuscularians. 234

X Perfect Circles &c exist not without (for none can so exist whether perfect or no) but in the mind 235

X Lines thought Divisible ad infinitum because they are suppos'd to exist without. Also because they are thought the same when view'd by the naked $^{eye}_{\wedge}$ & w^{n} view'd thro magnifying glasses. 236

X They who knew not Glasses had not so fair a pretence for the Divisibility ad infinitum. 237

X No idea of Circle etc in abstract. 238

+ Metaphisiques as capable of Certainty as Ethiques but not so capable to be demonstrated in a Geometrical way because men see clearer & have not so many prejudices in Ethiques. 239

S 3X¹ Visible ideas come into the mind very distinct, so do tangible ideas, Hence Extension seen & felt. sounds tastes etc are more blended. 240

3X¹ Qu : why not extension intromitted by the taste in conjunction w*th* the smell seeing tastes & smells are very distinct ideas. 241

X Blew & yellow particles mixt while they exhibit an uniform green, their extension is not perceiv'd, but as soon as they exhibit distinct sensations of Blew & yellow then their Extension is perceiv'd. 242

¹ S 3X Distinct perception of visible ideas not so perfect as of tangible, tangible ideas being many at once equally vivid. Hence heterogeneous [redacted] Extension. 243

²X¹ Object: why a mist encreases not the Apparent magnitude of an object in proportion to the faintness ? 244

+ Mem: to Enquire touching the squaring of the Circle etc. 245

a 3X¹ That w*ch* seems smooth & round to the touch may to sight seem quite otherwise. Hence no necessary connexion betwixt visible ideas & tangible ones. 246

X In Geometry it is not prov'd that an inch is divisible ad infinitum. 247

X Geometry not conversant about our compleat determin'd ideas of figures, for these are not divisible ad infinitum. 248

Particular Circles may be squar'd, for the circumference 249
S being given a Diameter may be found betwixt wch &
X ye true there is not any perceivable difference. therefore there is no difference. Extension being a perception & a perception not perceiv'd is contradiction, nonsense, nothing. In vain to alledge the difference may be seen by Magnifying Glasses. for in yt case there is ('tis true) a difference perceiv'd but not between the same ideas but others much greater entirely different therefrom.

Any visible circle possibly perceivable of any man 250
may be squar'd, by the Common way, most accur-
X ately, or even perceivable by any other being see he never so acute i.e. never so small an arch of a Circle this being wt makes the distinction between acute & dull sight, & not ye m:v: as men are, perhaps apt to think.

The same is True of any Tangible Circle, there- 251
X fore farther Enquiry of Accuracy in squaring or other curves is perfectly needless & time thrown away.

X Mem: to press wt last precedes more homely & to think on't again. 252

X A meer line or distance is not made up of points, does not exist, cannot be imagin'd or have an idea fram'd thereof no more than meer colour without extension. 253

XS Mem : a great difference between considering length wthout breadth, and having an idea of or imagining length without breadth. 254

\+ Malbranch out touching the Xtallines ▬ diminishing. ▬ l.1.c 6. 255

1X2 Tis possible (& perhaps not very improbable that is is sometimes so) we may have the greatest pictures from the least objects. therefore no (necessary) connexion betwixt visible & tangible ideas. these ideas viz. great relation to the Sphaera Visualis or to the M : V : (wch is all that (I would have) meant by our having a greater picture) and faintness, might possibly have stood for (or signify'd) small tangible extensions. Certainly the greater relation to S.V: & M:V. does (frequently) in yt men view little objects near the Eye. 256

12X Malbranch out in asserting we cannot possibly know whether there are 2 men in the world that see a thing of the same bigness. v.L.1 c.6 257

X Diagonal of particular square commensurable wth its side they both containing a certain number of M: V: 258

259 I do not think that surfaces consist of lines *i.e* meer distances. Hence perhaps may be solv^{d} that sophism w^{ch} × would prove the oblique line equal to the perpendicular between 2 parallels.

260 × Suppose an inch represent a mile. $\frac{1}{1000}$ of an inch ⊕ is nothing, but $\frac{1}{1000}$ of y^{e} mile represented is something therefore $\frac{1}{1000}$ of an inch tho' nothing is not to be neglected, because it represents something *i.e* $\frac{1}{1000}$ of a mile.

261 Particular Determin'd lines are not divisible × ad infinitum, but lines as us'd by Geometers are so they not being determin'd to any particular finite number of points. Yet a Geometer (He knows not why) will very readily say he can demonstrable an inch line is divisible ad infinitum.

262 A Body moving in the Optique axis not perceiv'd ×[1] to move by sight meerly & wthout experience. there is (tis true) a successive change of ideas it seems less & less, but besides this there is no visible change of place.

263 Mem : To Enquire most diligently Concerning
X the Incommensurability of Diagonale & side. whe-
ther it Does not go on the supposition of unit
being divisible ad infinitum, i.e of the extended
thing spoken of being divisible ad infinitum (unit
being nothing also V. Barrow Lect. Geom :). & so
the infinite indivisibility deduc'd therefrom is
a petitio principii.

264 X The Diagonal is commensurable with the
Side.

265 ffrom Malbranch, Locke & my first arguings
M it cant be prov'd that extension is not in matter
P ffrom Lockes arguings it can't be prov'd that
Colours, ~~Smells etc~~ are not in Bodies.

266 Mem : that I was ~~sceptical~~ distrustful at 8 years old and
Consequently by nature disposed for these new
Doctrines.

267 Qu : How can a line consisting of an unequal
X number of points be divisible [ad infinitum] in two
equals

1X 2 Mem: To discuss copiously how & why we do not see the Pictures. 268

M. P. Allowing extensions to exist in matter, we cannot know even their proportions Contrary to Malbranch. 269

1M S I wonder how men cannot see a truth so obvious, as that extension cannot exist without a a thinking substance. 270

M Species of all sensible things made by the mind, This provd either by turning Men's Eyes into magnifyers or diminishers. 271

Yr M.V. is suppose less than mine. 272

2 1X Let a 3d person have perfect ideas of both our M:V:s. His idea of my M.V. contains his idea of yrs & somewhat more, therefore tis made up of parts, therefore his Idea of my v.m. is not perfect or just wch diverts the Hypothesis.

2X1 Qu: whether a m.v. or T be extended ? 273

Mem. The strange errours men run into 274
1X2 ~~on account of~~ about the pictures.

X We think them small, because should a man 275
1 2 be suppos'd to see them their Pictures would take up but
little room in the fund of his Eye.

It seems all lines can't be bisected in 2 equall parts, 276
X Mem : to examine how the Geometers prove the con-
trary.

Tis impossible there should be a M.V. less than 277
1 2 mine. if there be mine may become equal to it (be-
X cause they are homogeneous) by detraction of some
part or parts, but it consists not of parts Ergo. &c

yt
2 Suppose ~~an~~ inverting perspectives bound to ∧ eyes 278
1 3 of a child, & continu'd to the years of Manhood,
X When he looks up or turns up his head he shall
behold wt ■ we call under. Qu : wt would
he think of up & down ?

I wonder not at my sagacity in discovering the 279
M obvious tho' amazing truth, I rather wonder at my stupid
1S inadvertency in not finding it out before. 'tis no witch-
craft to see ~~we know nothing but our~~ † ~~thoughts or wt these think~~ †

280 Our simple ideas are so many simple thoughts or
¹M perceptions, & that a perception ~~exists no longer than perception~~ cannot exist without a thing to perceive it or any longer than it is perceiv'd, that a thought cannot be in an unthinking thing, that one uniform simple thought can be ~~onely~~ like ■■■ to nothing but another uniform simple thought. Complex thoughts or ideas are onely an assemblage of simple ideas and can be the image of nothing or like unto nothing but another assemblage of simple ideas. &c

281 The ~~Belief of~~ Cartesian opinion of light
& Colours etc is orthodox enough ~~tho~~ even in their
M eyes who think ^ the expression ^ Scripture ^ may favour the common opinion. why may not mine also ? But there is nothing in Scripture that can possibly be wrested to make against me, but, perhaps, many things for me.

282 + Bodies etc do ~~really~~ exist whether we think of 'em or no, they being taken in a twofold sense. Collections of thoug-
S hts & collections of ~~ideas~~ powers to cause those thoughts. these later exist, tho perhaps a parte dei † it may be one simple perfect power.

Qu. whether the extension of a plain look'd at ~~straight~~ straight & slantingly, survey'd minutely & ■ dis- 283
11X² tinctly or in the Bulk and confusedly at once, be the same. N.B. the plain is suppos'd to keep the same distance.

the ideas we have by a successive, curious, 284
11X² yᵉ minute parts of
inspection of ∧ a plain do not seem to make up the extension of that plain view'd & consider'd all together.

\+ Ignorance in ~~a measure~~ some sort requisite 285
in yᵉ Person that should Discover the Principle.

Thoughts do most properly signify ~~the~~ 286
\+ or are mostly taken for the interior operations of the mind, wherein the mind is active, those yᵗ ~~follow~~ obey not the acts of Volition, & in wᶜʰ the mind is passive are more properly call'd sensations or perceptions, But yᵗ is all a case.

X Extension being the Collection or distinct coexistence 287
S ~~of perceptions~~ of Minimums i.e of perceptions intromitted by sight or touch, ■ it cannot be conceiv'd without a perceiving substance.

M.P.[1] The great argument to prove that Extension cannot be in an unthinking substance is that it cannot be conceiv'd distinct from or without all tangible or visible quality 288a

288

P Malbranch does not prove that the ~~species are not~~ figures & extensions exist not wⁿ the are not perceiv'd. Consequently he does not prove nor can it be prov'd on his principles, that yᵉ sorts are the work of the mind & onely in the mind.

289

M¹ Tho matter be extended wᵗʰ an indefinite Extension, yet the mind makes the sorts, they were not before the mind perceiving them. & even ∧ now they are not without the mind. Houses trees, &c tho' indefinitely extended matter do exist. are not without the mind.

290

M S The great danger of making extension exist without the mind. in yᵗ if it does it must be acknowleg'd infinite immutable eternal etc. wᶜʰ will be to make either God extended (wᶜʰ I think dangerous) or an eternal, immutable, infinite, increate being beside God.

IX finiteness of our mind no excuse for the Geometers. 292

Bodies taken for Powers do exist wⁿ not perceiv'd but 293a
+ this existence is not actual. wⁿ I say a power exists no more
is meant than that if in yᵉ light I open my eyes & look
I i.e yᵉ body
that way ʌ shall see it ʌ &c.

· M 1 S The Principle easily prov'd by plenty of arguments ad absurdum. 291

+ The twofold signification of Bodies viz. combinations of thoughts & combinations of powers to raise thoughts. These, I say, in conjunction wth homogeneous particles, may solve much better the objections from the Creation. than ye supposition that matter does exist upon A wch supposition, I think, they cannot be solvd. 293

+ Quer: whether Blind before sight may not have an idea of light & colours & visible extension After the same manner as we perceive them wth Eyes shut or in ye dark. not imagining but seeing after a sort. 294

X 13 Visible extension cannot be conceiv'd added to tangible extension. visible & tangible points can't make one sum. therefore these extensions are heterogeneous. 295

1X 1 A Probable method propos'd whereby one may judge whether in near vision there is a greater distance between the Xtalline & fund than usual. or whether ye Xtalline be onely render'd more convex if 296

[12]X little extension, by distinction made great 296a

if the former, then the V.S is enlarg^{d} & y^{e} m.v. corresponds to less than 30″ or w^{t}ever it us'd to correspond to.

$^{1}\times^{3}$ Stated measures, inches, feet etc are tangible not visible extensions. 297

Locke, More, Raphson etc seem to make God extended. 'tis nevertheless of great use to religion to take ~~away~~ extension out of our idea of God & put a power in its place. it seems dangerous to suppose extension w^{ch} is manifestly inert in God. 298

M

But say you the thought or perception I call extension is not itself ʌ in an unthinking thing or matter But it is like something w^{ch} is in matter. Well, says I, do you apprehend & conceive w^{t} you say extension is like unto or do you not. If the later, how know you they are alike, ~~if the former~~ how can you compare any things besides y^{r} own ideas. if the former it must be an idea i.e perception thought, or sensation w^{ch} to be in an unperceiving thing is a Contradiction. 299

M
~~S~~

I. I abstain from all flourish & pomp of words & figures ʌ using a great plainness & simplicity of ~~speech~~ stile having oft 300

I We judge of the distance of bodies as by other things 302a

IX so also by the situation of their pictures in the eye.

or (wch is the same thing) according as they appear higher or lower
those wch seem higher are farther of etc

found it difficult to understand those that use the Lofty & Platonic or Subtil & Scholastique strain.

Whatsoever has any of our ideas in it must per- 301
M¹ ceive, it being that very having, that passive reception
S of ideas that denominates the mind perceiving. that being the very essence of perception, or that wherein perception consists.

The faintness wch alters the Appearance of the 302
Horizontal Moon, rather proceeds from the quan-
1X² tity or Grossness of the intermediate Atmosphere, than from any change of Distance wch is ~~almost incon-~~ ~~siderable.~~ perhaps not considerable enough to be a total Cause but may be a partial cause of the Phaenomenon. N.B. the Visual angle is less in the Horizon.

Qu: why we see objects greater in ye dusk whether 303
12X this can be solv'd by any but my principles.

M The Reverse of ye Principle introduc'd Scepticism. 304

M N.B. On my Principles there is a reality, there are things, 305
there is a rerum Natura.

that
~~We think ʌ if just made to~~

a
X[13] We think that if just made to see we shou'd Judge 307
of the Distance & Magnitude of things as we do now.
so positively
but this is false. So also wt we think ʌ of the situation of
objects.

X Mem. The surds, Doubling the Cube &c 306

Hayes' Keil's etc method of proving the infini- 308
X tesimals of ye 3d order absurd, & perfectly contradictious.

Angles of Contact, & vēly all angles compre- 309
X hended by a right line & a curve, cannot be measur'd,
the arches intercepted not being similar.

~~S~~+ The danger of Expounding the H: Trinity by ex- 310
tension.

Qu: why should the magnitude seen at a near distance 311
M.P.[1] be deem'd the true one rather than that seen at a
farther distance ? Why should the Sun be thought many
1000 miles rather than one foot in diameter : both being ~~onely~~ equally
apparent diameters ? Certainly Men judg'd of the Sun not
in himself but wth relation to themselves.

M 4 Principles whereby to answer objections viz— 312
1. Bodies do really exist tho not perceiv'd by us.
2. There is a law or course of Nature.
3. Language & knowlege are all about ideas, ■ words stand
for nothing else.

4. Nothing can be a proof against one side of a contradiction that bears equally hard upon the other.

X What shall I say ? dare I pronounce the admir'd 313
S ακριβεια Mathematica, that Darling of the Age a trifle ?

X Most certainly no finite Extension divisible ad 314
Infinitum.

X M Difficulties about Concentric Circles. 315

Mem. to Examine & accurately discuss the scho- 316
N. lium of the 8th Definition of Mr Newton's Principia.

X S Ridiculous in the Mathematicians to despise sense. 317

Qu. is it not impossible there shou'd be General ideas ? 318
All ideas come from without, ~~the mind~~ they are all par-
\+ ticular. The mind, tis true, can consider one thing without
another, but then consider'd asunder they make not 2 ideas. both
together can make but one as for instance Colour & Visible ex-
tension.

X The end of a Mathematical line is nothing. Locke's argument that the end of his pen is black or white concludes nothing here. 319

X Mem: take care how you pretend to define extension, for fear of the Geometers. 320

X Qu: why difficult to imagine a minimum. Ans. because we are not us'd to take notice of 'em singly, they not being able singly to pleasure or hurt us thereby to deserve our regard. 321

X Mem. to prove against Keil y^t^ the ^infinite^ divisibility of matter makes ~~a hal~~ the half have an equal number of equal parts with the whole. 322

X Mem. to examine how far the not comprehending infinity may be admitted as a plea. 323

X Qu. why may not the Mathematicians reject all the extensions below the M. as well as the d d s etc w^ch^ are allow'd to be somthing & consequently may be magnify'd by glasses into inches, feet etc as well as the quantitys next below the m ? 324

+	Bigg, little & number are the works of the mind. How therefore	325
S	can yᵉ extension you suppose in matter be big or little how can it consist of any number of points ?	
P	Mem: strictly to remark L.b 2.c.8 S.8	326
+	Schoolmen compar'd with the Mathematicians	327
X	Extension is blended wᵗʰ tangible or visible ideas, & by the mind praescinded therefrom.	328
	Mathematiques made easy the Scale does almost all.	329
X	the Scale can tell us the subtangent in yᵉ Parabola is 2ble the abscisse.	
	Wᵗ need of the Utmost accuracy wᵗʰ the Mathematicians	330
X	own in rerum natura they cannot find any thing corresponding wᵗʰ their nice ideas.	
X	Newton in sad plight about his Cave intellexeris finitas.	331
X	One should indeavour to find a progression by trying wᵗʰ the Scale.	332
X	Newton's fluxions needless. any thing below a M. might serve for Leibnitz's Differential Calculus.	333

How can they hang together so well since ~~ther~~ there are in them 334
X (I mean the mathematiques) so many Contradictoriae argu-
tiae v. Barrow Lect:

A man may read a book of Conics with ease knowing 335
X how to try if they are right. he may take 'em on the credit of the
Authour.

Where's the need of certainty in such trifles ? the ~~onely~~ thing 336
X that makes it so much esteem'd in them is that we are thought
not capable of getting it elsewhere. But we may in Ethiques &
Metaphysiques.

The not Leading men into mistakes no argument for the 337
X truth of the infinitesimals. they being nothings may, perhaps,
do neither good nor harm. except wⁿ they are taken for somthing : & then
the contradiction begets a Contradiction.

X a + 500 nothings = a + 50 nothings an innocent silly truth 338

My Doctrine excellently corresponds wᵗʰ the Creation 339
M I suppose no matter, , no stars, sun &c to have
existed before.

X It seems all Circles are not similar figures there not being 340
the same proportion betwixt all circumferences & their diameters.

But the $\frac{1}{10000}$ of a mile being somwhat they think 341a

X the $\frac{1}{10000}$ of the inch is somwhat, wᵗ they think of yᵗ they imagine they think on this.

X* or rather that invisible length does exist. 342a

When a small line upon Paper represents a mile the 341
X· Mathematicians do not calculate the $\frac{1}{10000}$ of the Paper line
they Calculate the $\frac{1}{10000}$ of the mile 'tis to this the have
regard, tis of this the think if they think or have any
idea at all. the inch perhaps might ■ represent to their
imaginations the mile but y^{e} $\frac{1}{10000}$ of the inch
not
can ʌ be ■ made to represent anything it not being
imaginable.

3 ■ faults occur in the arguments of the Mathe- 342
maticians, for divisibility ad infinitum. 1. they
X suppose extension to exist without the mind or not per-
ceiv'd. 2. they suppose that we have an idea of length
without breadth. * or that length without breadth does exist.
unite
3 that ~~Number~~ is divisible ad infinitum.

X To suppose a M.S. divisible is to say ɑ there are 343
distinguishable ideas where there are no distinguishable ideas.

X The M.S. is not near so inconceivable as this Sig- 344
num in magnitudine individuum.

Mem : To examine the Math: about their point 345
X w^{t} it is something or nothing, & how it differs from the M.S.

By ye excuse is meant the finiteness of our mind making it possible for contradictions to appear true to us. 350a

X nor can it be objected that we reason about Numbers wch are only words & not ideas, for these Infinitesimals are words, of no use, if not suppos'd to stand for Ideas. 354a

All might be demonstrated by a new method of 346
× indivisibles, easier perhaps & juster than that of Cavallerius.

M.P.[1] Unperceivable perception a contradiction. 347

G. Proprietates reales rerum omnium in Deo tam corporum quam spirituum continentur. Clerici Log : cap. 8[m]. 348

+ Let my adversaries answer ~~onely~~ any one of mine i'll yield— 349
If I don't answer every one of theirs I'll yield.

+ The Loss of the excuse may hurt Transubstantiation, but not the Trinity 350

We need not strain our Imaginations to conceive 351
× such little things. Bigger may do as well for intesimals since the integer must be an infinite.

× Evident y[t] w[ch] has an infinite number of parts 352
must be infinite.

× Qu: whether extension be resoluble into points 353
id does not consist of.

Axiom. No reasoning about things whereof we 354
× have no idea. Therefore no reasoning about
Infinitesimals.

not 362a

M Qu: whether I had a better allow Colours to exist without the Mind taking
P the Mind for the Active thing w^ch I call I, my self. Y^t seems to be distinct
from y^e Understanding.

P. The taking extension to be distinct from all other tangible 363a
& visible qualities & to make an idea by it self.
has made Men take it to be without the Mind.

×	Much less infinitesimals of infinitesimals &c.	355
+	Axiom. No word to be used without an idea.	356
S	If uneasiness be necessary to set the will at work. Qu: How shall we will in Heaven.	357
+	Malbranche's & Bayle's arguments do not seem to prove against Space, but onely Bodies.	358
M.P.[1]	Our Eyes & Senses inform us not of the existence of Matter or ideas existing existing without the mind. They are not to be Blam'd for the mistake.	359
×	I defy any man to assign a Right line equal to a Paraboloeid, but that w[n] lookt at thro a Microscope they may appear unequall.	360
M	Newton's Harangue amounts to no more than that gravity is proportional to gravity.	361
×	One can't imagine an extended thing without colour. v. Barrow L.G.	362
P	Men allow colours, sounds &c ∧ (not) to exist without the mind tho they had no Demonstration they do not. Why may the ~~have~~ not allow my Principle with a Demonstration.	363

+ I see no wit in ∧ any of them but Newton, The rest are meer triflers, meer ~~Nothin~~ Nihilarians. 372

× The folly of the Mathematicians in not judging of sensations by their senses. Reason was given us for nobler uses. 373

* Extension without breadth i.e. invisible, intangible length is 365a
× not conceivable tis a mistake we are led into by the Doctrine of Abstraction.

× Sir Isaac owns his book could have been demonstrated on the supposition of indivisibles. 374

Mathematicians have some of them good parts, 375
+ the more is the pity. Had they not been Mathematicians they had been good for nothing. they were such fools they knew not how to employ their parts.

+ The Mathematicians could not so much as tell where- 376
× in truth & certainty consisted till Locke told 'em.
I see the best of them talk of light & colours as if w~~i~~thout the mind.

Keils filling the world with a mite this fol- 364
X lows from the Divisibility of extension ad infi-
M nitum.

* Extension or length without breadth seems to be no- 365
\+ thing ■ save the number of points that lie betwixt any
2 points. it seems to consist in meer proportion meer
reference of the mind.

\+ To what purpose is it to Determine the 366
X Focus's of Glasses Geometrically.

M Innumerable vessels if Matter v. Cheyne. 367

\+ I'll not admire the Mathematicians. tis wt 368
any one of common sense might attain to by
repeated acts. I know it by experience, I am but one of
common sense, and I etc

\+ By thing I ~~onely mean~~ either mean Ideas or that 369
wch has ideas.

\+ Nullum Praeclarum ingenium unquam fuit 370
Magnus Mathematicus. Scaliger.

Genius
\+ A Great ~~wit~~ cannot stoop to such trifles & 371
~~they~~ minutenesses as they consider.

M.[1] An idea cannot exist unperceiv'd 377

These arguments must be proposd shorter & more separate in the Treatise. 378a

+ 1 All significant words stand for Ideas 378
2 All knowlege about our ideas
+ 3 All ideas come from without or from within.
4 If from without it must be by the senses & they are call'd sensations.
+ 5 If from within they are the operations of the mind & are called thoughts.
6 No sensation can be in a senseless thing.
7 No thought can be in a thoughtless thing.
+ 8 All our ideas are either sensations or thoughts, by 3.4.5.
9 None of our ideas can be in a thing wch is both thoughtless & senseless. 6.7.8.
10 the bare passive reception or having of ideas is call'd perception
11 Whatever ~~therefore~~ has in it an idea, tho it be never so passive, tho it exert no manner of act about it, yet it must perceive
12 all ideas either are simple, ~~uniform~~ ideas, or made up of simple ~~uniform~~ ideas.
+ 13 that thing wch is like unto another thing must agree wth it in one or more simple ideas.

14 whatever is like a simple idea must either be another sim-
+ ple idea of the same sort or contain a simple idea of
the same sort. 13.
15 nothing like ~~a simple~~ an idea can be in an unper-
ceiving thing. 11. 14.

another demonstration of the same thing

16 Two things cannot be said to be alike or unlike till
they have been compar'd
ing
17 Comparing is the view ∧ two ideas together, & marking
wt ~~simple ideas~~ they agree in & wt they disagree in.
18 The mind can compare nothing but its' own ideas. 17.
19 Nothing like an idea can be in an ũperceiving
thing. 11. 16. 18.

both a priori & a posteriori
N.B. Other arguments innumerable ∧ drawn from all 379
the sciences, from the clearest plainest most ob-
vious truths ~~fro~~ whereby to Demonstrate the
neither
Principle ~~viz~~ i.e that ∧ our Ideas nor any thing
like our ideas can possibly be in an unperceiving
thing.

N.B. Not one argument ~~of any sort~~, of any kind wt 380
soever, certain or probable, a priori or a posteriori
from any art or science, from either sense or reason
against it.

* to the utmost accuracy wanting nothing of perfection. their so- 383a

of Problems

× lution ∧ themselves must own to fall infinitely short of perfection

X	Mathematicians have no right idea of angles. hence angles of Contact wrongly apply'd to prove extension divisible ad infinitum.	381
X	We have got the Algebra of pure intelligences	382
X	We can prove Newton's ~~prin~~ propositions * more accurately more easily & upon truer principles than himself.	383
X	Barrow owns the Downfall of Geometry. However it I'll Endeavour to Rescue it. so far as ∧ is usefull or real or imaginable or intelligible, but for the no-things I'll leave them to their admirers.	384
X	I'll teach any one the whole course of Mathematiques in $\frac{1}{100}$ prt the time that another will.	385
X	Much Banter got from the prefaces of the Marhematicians.	386
+	Innumerable vessels if Matter v. Cheyne.	387
P	Newton says colour is in the subtil matter. hence Malbranch proves nothing or is mistaken in asserting there is onely figure & motion therein.	388

X The Billys ~~take~~ use a finite visible line for an $\frac{1}{m}$ 389

Marsilius ficinus his appearing the moment he died solv'd 390
T by my idea of time.

The Philosophers lose their Matter, The Mathematicians 391
M loose their insensible sensations, ∧ Pray wt do the Rest of the Profane their extended Deity
Mankind lose, as for bodies &c we have them still.
N.B the future Philosoph: & Mathem: get vastly by yt bargain.

There are men who say there are insensible extensions, there 392
P are others who say the Wall is not white, the fire is not
hot &c We Irish men cannot attain to these truths.

The Mathematicians think there are insensible lines, 393
X about these they harangue, these cut in a point, at all angles
these are divisible ad infinitum. We Irish men can con-
ceive ~~no such thing~~ no such lines.

X The Mathematicians talk of ~~something~~ wt they call 394
a point, this they ~~they~~ say is not altogether nothing nor
is it downright somthing, now we Irish men are apt
to think something & nothing are next neighbours.

X	I can square the circle, &c they cannot, wᵗʰ ʌ goes on the best principles	395
+	Engagements to P. on account of yᵉ treatise that grew up under his Eye, on account also of his approving my harangue. Glorious for P. to be the Protectour of usefull tho newly discover'd Truths.	396
+	How could I venture thoughts into the world, before I knew the would be of use to the world? and how could I know that till I had try'd how the suited other men's ideas.	397
+	I Publish not this so much for anything else as to know whether other men have the same Ideas as we Irishmen. this is my end and not to be inform'd as to my own Particular.	398
+	The Materialists & Nihilarians need not be of a party.	399

Qu: is power a simple idea, seeing it includes relation
Qu: are we ~~at liberty~~ blameable wn a passion (as sometimes) like a hurricane takes away our liberty

How can hope not be much different from Desire, seeing one's a pleasure, t'other a pain.

Liberty not consists in suspension.

The will ~~or rather mind~~ in case of suspension & examination is not determin'd from without.

According to Locke we have not liberty as to virtue & vice, liberty consisting in an indifferency of ye operative faculties to act or not to act, wch is consecutive to the will, but vertue & vice consist in the will ergo
vid ■ c.21.b.2 S 71

Whether is a spirit movd wth absolute or relative motion or wth both ?

Ideas of substances seem to be adequate

Philosophical Commentaries

The Text

Notebook A

MS. Folios . . .	3–95
Entries	400–888
Pages	129–313

G:B:Coll:Trin:Dub:alum

I — Introduction

M — Matter

P — Primary & Secondary Qualities

E — Existence

George Berkeley A B ex Aed. Xti

T — Time

S — Soul — Spirit

G — God

Mo — Moral Philosophy

N — Natural Philosophy

Qu: if there be not two kinds of visible extension. one per- 400
1X3 ceiv'd by a confus'd view, the other by a distinct successive direc-
tion of the optique axis to each point.

No general Ideas, the contrary a cause of mistake or con- 401
I fusion in Mathematiques etc. this to be intimated in ye
Introduction.

\+ The Principle may be apply'd to the difficulties of 402
Conservation cooperation etc.

Trifling for the Philosophers to enquire the 403
N cause of Magnetical attractions etc, They onely search
after coexisting ideas.

Quaecunque in Scriptura militant adversus Coper- 404
M.P. nicum, militant pro me.

All things in the Scripture wth side with the Vul- 405
M.P. gar against the Learned side with me also. I side
in all things with the Mob.

I know there is a mighty sect of Men will oppose 406
me. but yet I may expect to be supported by those
whose minds are not so far overgrown wth madness, these are
far the greatest part of Mankind. Especially Moral-
ists, Divines, Politicians, in a word all but Mathematicians
&

& Natural Philosophers (I mean only the Hypothetical Gentlemen). Experimental Philosophers have nothing whereat to be offended in me.

\+ Newton begs his Principle,† I Demonstrate mine. 407

I must be very particular in explaining wt is meant 408
M.E. by things existing in Houses, chambers, fields, caves etc
not
wn ∧ perceiv'd as well as wn perceiv'd. & shew how the Vulgar notion agrees with mine when we narrowly inspect into the meaning & definition of the word Existence wch is no simple idea distinct from ~~perception~~ perceiving & being perceiv'd.

\+ The Schoolmen have noble subjects but handle them ill. The Mathematicians have trifling subjects but reason admirably about them. certainly their Method & arguing are excellent. 409

\+ God knows how far our knowlege of Intellectual beings may be enlarg'd from the Principle. 410

M. The Reverse of the Principle I take to have chief been the A source of all that scepticism & folly all those contradictions & inextricable puzling absurdities, that have in all ages been a reproach to Human Reason. as well as of that Idolatry ~~of~~ whether of Images or of Gold etc that blinds the Greatest part of the World. as well as of that shamefull immorality that turns us into Beasts. 411

E ττττ νυκτ & ημτ. 412

+ E ουσια the name for substance used by Aristotle the fathers etc. 413

X If at the same time we shall make the Mathematiques much more easie & much more accurate, wt can be objected to us ? 414

X We need not force our Imagination to conceive such very small lines for infinitesimals. they may every whit as well be imagin'd big as little since that the integer must be infinite. 415

1754 1755 1755

Evident that wch has an īfinite number of 416
X parts must be infinite.

We cannot imagine a line or space infinitely 417
X great therefore absurd to talk or make proposi-
tions about it.

We cannot imagine a line, space etc quovis da 418
X to majus. Since yt what we imagine must be
datum aliquod. & a thing can't be greater than
it self.

If you call infinite that wch is greater than any 419
X assignable by another, then I say in that sence
there may be an infinite square, sphere or any other
figure wch is absurd.

X Qu. if extension be resoluble into points it does 420
not consist of.

X No reasoning about things whereof we have 421
no ideas therefore no Reasoning about Infi
nitesimals.

\+ No word to be used without an idea. 422

S If uneasiness be necessary to set the will 423
at work. Qu: How shall we will in Heaven.

M
P I agree in Nothing w^th^ the Cartesians as to ^ y^e^ existence of Bodies & qualities 424a

M The Horse it self the Church it self is an Idea i:e object ^ immediate object of thought. 427a

^ or velle i:e. agere 429a

+	Bayle's Malbranch's etc arguments do not seem to prove against space, but onely against Bodies.	424
+	Aristotle as good a Man as Euclid but He was allow'd to have been mistaken.	425
X	Lines not proper for Demonstration	426
⊕ M	We see the Horse it self, the Church it self [redacted] it being an Idea & nothing more	427
X	Instead of injuring our Doctrine much Benefits Geometry.	428
E	Existence is percipi or percipere A . the horse is in the stable, the Books are in the study as before.	429
N	In Physiques I ~~see~~ have a vast view of things soluble hereby but have not Leisure.	430
N	Hyps & such like unaccountable things confirm my Doctrine.	431

Making thought to be active 437a

Angle not well Defin'd see Pardie's 432
X Geometry by Harris etc: this one ground
of Trifling

One idea not the cause of another, 433
\+ one power not the cause of another.
The cause of all natural things is onely
to enquire
God. Hence trifling ʌ after second Causes.
This Doctrine gives a most suitable idea
of the Divinity.

N Absurd to study Astronomy & other 434
the like Doctrines as speculative sciences.

N The absurd account of Memory by 435
the Brain etc makes for me.

\+ How was light created before man ? even 436
so were Bodies created before man.

E[1] Impossible any thing Besides that wch thinks 437
& is thought on should exist.

X this belongs to Geometry 44I2

That wch is visible cannot be made up of invisi- 438
X ble things.

M.S. is that ~~wch~~ wherein there are not contain'd distinguish- 439
X able sensible parts. now how can that wch hath not sensible parts be divided into sensible parts ? if you say it may be be divided into insensible parts. I say these are nothings.

Extension abstract from sensible qualities is no 440
X sensation, I ~~aver~~ grant, but then there is no such idea as any one may try. there is onely a Considering the number of points without the sort of them, & this makes more for me. since it must be in a Considering thing.

Mem: before I have shewn the Distinction between 441
1X12 visible & tangible extension I must not mention them as distinct, I must not mention M.T. & M.V. but in general M.S. etc.

Qu: whether a M.V. be of any colour ? a M.T. 442
1X3 of any tangible quality ?

If visible extension be the object of Geometry 443
1X3 'tis that which is survey'd by the optique axis.

P I may say the pain is in my finger etc accord- 444
ing to my Doctrine.

Mem : nicely to discuss wt is meant when we say a 445
line consists of a certain number of inches or points etc
X A Circle of a certain number of square inches, points
etc. Certainly we may think of a Circle, or have its'
idea in our mind without thinking of points or
square inches etc. whence it should seem the idea
of
of a Circle is not made up ∧ the ideas of points
square inches etc.

Qu: is any more than this meant by the foregoing 446
Expressions viz. that squares or points may be per-
out
X ceived in or made ∧ of a ~~Line~~ Circle etc. or that
squares points etc are actually in it i.e. are perceiva-
ble in it.

A line in abstract or distance is the number of 447
X+ points between two points. There is also distance be-
tween a Slave & an Emperour, between a Peasant &
Philosopher, between a drachma & a pound, a farthing
& a Crown etc in all wch distance signifies the
number of intermediate ideas.

* that need not have been blotted out, 'tis good sense if we do but de- 448a
termine wt we mean by thing and Idea.

P 1 Motion distinct from ye thing moved is not Conceivable. 450a

Halley's Doctrine about the Proportion between 448
Infinitely great quantities vanishes. When men
X speak of Infinite quantities, either they mean
finite quantities or else talk of [~~that whereof~~
* ~~they have~~] no idea. both wch are absurd.

If the Disputations of the Schoolemen are blam'd for 449
triflingness
intricacy ʌ & confusion, yet it must be acknowleg'd that in
the main they treated of great & important subjects. If
X we admire the Method & acuteness of the Math: the
length, the subtilty, the exactness of their Demon-
strations, we must nevertheless be forced to
grant that they are for the most part about trifling sub-
jects & perhaps nothing at all.

+ Motion on 2^{d} thoughts seems to be a simple 450
idea

N Mem : to take notice of Newton for Defining it 451
also of Locke's wisdom in leaving it undefin'd.

ut ordo partium Temporis est immutabilis, sic 452
+ etiam ordo partium Spatii. Moveantur hae de lo-
cis suis et movebuntur, (ut ita dicam) de seipsis. Truly
Number is immoveable that we will allow with Newton.

Ask a Cartesian whether he is wont to imagine 453
P his globules without colour, pellucidness is a colour. The colour of ordinary light of the Sun is white. Newton in the right in assigning colours to the rays of light.

A man born Blind would not imagine Space 454
1X1 as we do. we give it always some dilute or duskish or dark colour. in short we imagine it ʌ as visible or intromitted by the Eye wch he would not do.

Proinde vim inferunt sacris literis qui voces 455
N hasce (v. tempus, spatium, motus) de quantitatibus mensuratis ibi interpretantur. Newton p. 10.

I differ from Newton in that I think the re- 456
N cession ab axe motus is not the effect or index or measure ʌ of motion, but of the vis impressa. it sheweth not wt is truly moved but wt has the force impress'd on it. or rather ~~of~~ that wch hath an impressed force.

D & P are not proportional in all Circles. dd is to ʌ $\frac{1}{4}$dp 457
X as d to $\frac{p}{4}$ but d & $\frac{p}{4}$ are not in the same proportion in all Circles. Hence 'tis nonsense to seek the terms of one general proportion whereby to rectify all peripheries or of another whereby to square all Circles.

N.B. if the Circle be squar'd Arithmetically, 'tis 458
X squar'd Geometrically. Arithmetic or numbers being
nothing but ~~the~~ lines & proportions of lines when apply'd
to Geometry.

X+ Mem. to remark Cheyne & his Doctrine of infinites 459

Extension, motion, Time ~~have~~ do each of them in- 460
clude the idea of succession. & so far forth they
X seem to be of Mathematical Consideration. Number
consisting in succession & distinct perception wch also
consists in succession for things at once perceiv'd are
jumbled & mixt together in the mind. Time and motion
cannot be conceiv'd without succession, & extension qua
Mathemat: cannot be conceiv'd but as consisting of
parts wch ~~are so~~ may be distinctly & successively per-
ceiv'd. Extension perceiv'd ■■ at once & in confuso does
not belong to Math.

The ~~of~~ simple idea call'd Power seems obscure or ra- 461
ther none at all. but onely the relation 'twixt cause
+ & Effect. W^{n}–I ask whether A can move B. if
A be an intelligent thing. I mean no more than
whether the volition of A that B move be attended
with the motion of B, if A be senseless whether the

impulse of A against B be follow'd by ye motion of B.

Barrows arguing against indivisibles, lect. 1. p. 16 462
is a petitio principii, for the Demonstration of Archi-
X medes supposeth the circumference to consist of more than
24 points. moreover it may perhaps be necessary to suppose
the divisibility ad infinitum, in order to Demon-
strate that the radius is equal to the side of the Hexa-
gon.

Shew me an argument against indivisibles 463
X that does not go on some false supposition.

A great number of insensibles. or thus. two invisibles 464
say you put together become visible therefore that m.v. con-
tains or is made up of Invisibles. I answer. the m.v. does
X not comprise, is not compos'd of Invisibles. all the mat-
ter amounts to this viz. whereas I had no idea a while agoe
I have an idea now. It remains for you to prove that
idea
I came by the present ʌ because there were 2 invisibles
added together. I say the invisibles are nothings, cannot
exist, include a contradiction.

I am young, I am an upstart, I am a pretender, I am 465
+ vain, very well. I shall Endeavour patiently to bear
up under the most lessening, vilifying ap-

pellations the ~~wit~~ pride & rage of man can devise.
But one thing, I know, I am not guilty of. I do not
pin my faith on the sleeve of any great man.
I act not out of prejudice & prepossession. I do
not adhere to any opinion because it is an old one,
a receiv'd one, a fashionable one, ~~&~~ or one that
I have spent much time in the study and cultiva-
tion of.

Sense rather than Reason & demonstration 466
X ought to be employ'd about lines & figures,
these being things sensible, for as for those
you call insensible we have prov'd them to be
nonsense, nothing.

If in some things I differ from a Phi- 467
I losopher I profess to admire, 'tis for that very
~~account on wch~~ thing on account whereof
I admire him namely the ~~free & unpreju-~~
~~-dic'd search after~~ love of truth. this etc

wherever my Reader finds me talk very positive- 468
I ly I desire he'd not take it ill. I see no reason why
certainty should be confin'd to the Mathematicians

469 I say there are no incommensurables, no surds, ~~Say you~~ I say the side of any square may be assign'd in
X numbers. Say you assign unto me the side of the square 10. I ask wt 10, 10 feet, inches etc or 10 points. if the later ; I deny there is any such square, tis impossible 10 points should compose a square. if the former, resolve yt ~~square~~ 10 square inches, feet etc into points & the number of points must necessarily be a square number whose side is easily assignable.

470 A mean proportional cannot be found betwixt any two given lines. it can onely be found be-
X twixt those the numbers of whose points multiply'd together produce a square number. thus betwixt a line of 2 inches & a line of 5 inches, a mean geometrical ∧ cannot be found except the number of points contain'd in 2 inches multiply'd by yt number of points contain'd in 5 inches make a square number.

471 If the wit & industry of the Nihilarians were employ'd about the usefull & practical
X Mathematiques, wt advantage had it brought to Mankind ?

according to my Doctrine all are not entia 474a
B rationis the distinction between ens rionis & ens reale
is kept up by it as well as any other Doctrine.

You ask me whether the books are in the study now ∧ wn 472
no one is there to see them. I answer yes. you ask
M.E me are we not in the wrong for imagining things
to exist wn they are not actually perceiv'd by the
senses. I answer no. the existence of our ideas
consists in being perceiv'd, imagin'd thought on
whenever they are imagin'd or thought on they
do exist. Whenever they are mention'd or discours'd
of they are imagin'd & thought on therefore
you can at no time ask me whether they exist
or no, but by reason of yt very question they
must necessarily exist.

But say you then a Chimaera does exist. I 473
E answer it doth in one sense. i.e it is imagin'd. but
it must be well noted that existence is vulgarly restrain'd
to actuall perception. & that I use the word Existence
in a larger sense than ordinary.

+ N.B. according to my Doctrine all things are 474
entia rationis i.e. solum habent esse in Intellectu.

You ask me whether there can be an infinite 475
Idea ? I answer in one sense there may. thus
X the visual sphere tho ever so small is infinite.
i.e. has no end. But if by infinite you mean an exten
sion

* i.e hinders not their being nameable. 475a

M or rather why he supposes all yᵉ Matter, for bodies & their qualitys I do allow to exist independently of Our mind. 477a

consisting of innumerable points. then I ask y^r^
pardon. points tho never so many may be number'd
the multitude of points or feet, inches etc hin-
* ders not their numbrableness in the least. Many
or most are numerable as well as few or least.
also if by infinite idea. you mean an
idea too great to be comprehended or perceiv'd
all at once. you must excuse me. I think
such an infinite is no less than a con-
tradiction.

The sillyness of the Currant Doctrine 476
M^1^ makes much for me. they commonly
suppose a material world, figures, motions, bulks
of various sizes etc according to their own
confession to no purpose, all our sensations
may be & sometimes actually are without
them. nor can men so much as conceive
it possible they should concur in any wise
to the production of them.

I mean a Cartesian
Ask a man ʌ why he supposes this vast 477
M^1^ structure, this compages of Bodies. he shall be
at a stand, he'll not have One word to say. w^ch^ suf-

S The soul is the will properly speaking & as it is distinct from Ideas. 478a

ficiently shews the folly of the hypothesis :

Qu: how is the soul distinguish'd from its' ideas ? 478
S certainly if there were no sensible ideas there could be no soul, no perception, remembrance, love, fear etc. no faculty could be exerted.

S The grand, puzling question whether I sleep or wake ? easily solv'd. 479

Qu: whether minima or meer minima may not 480
X be compar'd by their sooner & later evanescency as well as by more or less points. So that one sensibile may be greater than another tho it exceeds it not by one point.

Circles ~~are not~~ on several radius's are not simi- 481
lar figures they having neither all nor any an infi-
X nite number of sides. Hence in Vain to en-
one & ye same
quire after 2 terms of ∧ ~~a~~ proportion that should constantly express the reason of the d to the p in all Circles.

Mem: to remark Wallis's harangue that the 482
X aforesaid Proportion can neither be express'd by rational numbers nor surds.

This I do not altogether approve of 484a

We can no more have an idea of length without breadth 483
X or visibility than of a General figure.

× One idea may be like another idea tho' they Contain 484
no common simple idea. thus the simple idea red is
+ in some sense like the simple idea blue. tis liker
it than sweet or shrill. But then those ideas wch
are so said to be alike agree ~~either~~ both in their
connexion with another simple idea viz. extension
& in their being receiv'd by one & ye same sense.
But after all nothing can be like an idea but
an idea.

+ No sharing betwixt God & Nature or second 485
Causes in my Doctrine.

Materialists must allow the Earth to be ac 486
M tually mov'd by the Attractive power of every stone
that falls from the air. with many other the
like absurditys.

Enquire concerning the Pendulum Clock etc. 487
X whether those inventions of Huygens etc may be
attained to by my Doctrine.

+ The $''$ & $''''$ & $''''''$ etc of time are to be cast away & neglected as so many noughts or nothings. 488

+ Mem. to make experiments concerning Minimums & their colours. whether they have any or no. & whether they can be of that green wch seems to be compounded of yellow & blue. 489

Qu: whether it were not better not to call the oper- 490
S ations of the mind ^ ideas, confining this term to things sensible ?

Mem: Diligently to set forth how that ^ many of 491
the Ancient philosophers run into so great absur-
E ditys as even to deny the existence of motion and those other things they perceiv'd actually by their senses. this sprung from their not knowing wt existence was and wherein it consisted this the source of all their Folly, 'tis on the Discovering of the nature & meaning & import of Existence that I chiefly insist. This puts a wide dif- ference betwixt the Sceptics ~~etc~~ & me. This I think wholly new. I am sure 'tis new to me

there
We have learn'd from Mr. Locke. that ʌ may be 492
× and that there are several glib, coherent, methodical
Discourses wch nevertheless amount to just
nothing. this by him intimated with relation
to the Scholemen. We may apply it to the
Mathematicians.

\+ Power no simple Idea. it means nothing but 493
the Relation between Cause & Effect.

\+ Qu: How can all words be said to stand for ideas ? 494
The word Blue stands for a Colour without any extension
or abstract from extension. But we have not an idea
of Colour without extension. we cannot imagine
Colour without extension.

\+ Locke seems wrongly to assign a Double 495
use of words one for communicating & the other
for recording our thoughts. Tis absurd to use
words for the recording our thoughts to our selves :
or in our private meditations.

S it should be said nothing but a Will, a being wch wills 499a
being unintelligible.

No one abstract simple idea like another 496

two
~~one~~ simple ideas may be connected with one & the
\+ same 3d simple idea, or be intromitted by one
& the same sense. But consider'd in themselves they
can have nothing common & consequently no
likeness.

Qu: How can there be any abstract ideas of 497
\+ Colours ? it seems not so easily as of tastes or
sounds. But then all abstract ideas whatsoever
are particular. I can by no means conceive a
general idea. 'Tis one thing to abstract one
idea from another of a different kind. &
another thing to abstract an idea from all
particulars of the same kind.

Mem. much to Recommend & approve of 498
N Experimental Philosophy.

What means Cause as distinguish'd from 499
S Occasion ? nothing but a Being wch wills wn
the Effect follows the volition. Those things
that happen from without we are not the Cause
of therefore there is some other Cause of them

i.e. there is a being that wills these perceptions
in us.

× One square cannot be double of another. Hence 500
the Pythagoric Theorem is false.

Some writers of Catoptrics absurd enough to 501
1×1 the apparent place of y^e^ object
place ʌ ~~image~~ in the Barrovian Case behind the
eye.

+ Blew & yellow chequers still diminishing termi- 502
nate in green. This may help to prove the composi-
tion of green.

+ There is in green 2 foundations of 2 relations of 503
likeness to blew & yellow. therefore Green is compoun-
ded

+ A mixt cause will produce a mixt Effect there- 504
fore Colours are all compounded that we see.

+ Mem: to Consider Newton's two sorts of Green. 505

+ N.B. my Abstract & general Doctrines ought 506
not to be condemn'd by the Royall Society
Tis w^t^ Their Meeting did ultimately intend.
v. Sprat's History S.R.

I Mem. to Premise a Definition of Idea. 507

Mo. The 2 great Principles of Morality. the Being of a God & the Freedom of Man : these to be handled in the beginning of the Second Book. 508

X Subvertitur Geometria ut non practica sed Speculativa. 509

X Archimedes's proposition about squaring the Circle has nothing to do with circumferences containing less than 96 points. & if the circumference contain ∧ (96 points) it may be apply'd but nothing will follow against indivisibles. v. Barrow. 510

X Those ∧ (Curve) lines that you can Rectify Geometrically. Compare them with their equal right lines & by a Microscope you shall discern an inequality. Hence my squaring of the Circle as good & exact as the best. 511

512
M Qu: whether the substance of Body or any thing else, be any more than the Collection of Ideas included in that thing. Thus the substance of ^any particular Body is extension solidity figure. of General Body no idea.

513
I Mem: ~~Care~~ most carefully to inculcate & set forth how that the Endeavouring to Express abstract philosophic Thoughts by words unavoidably runs a man into Difficulties. This to be done in the ~~Pre~~ Introduction.

514
X Mem: to Endeavour most accurately to understand wt is meant by this axiom : Quae sibi mutuo congruunt aequalia sunt.

515
X Qu: wt the Geometers mean by equality of lines & whether according to their definition of equality a curve line can possibly be equal to a right line.

516
X If wth me you call those lines equal wch contain an equal number of points. then there will be no difficulty. that curve is equal to a right line wch contains as [many] † points

N.B. I am more for reality than any other Phi- 517a
A losophers, they make a thousand doubts & know not certainly but we may be deceiv'd. I assert the direct Contrary.

points as the right.one doth.

517 I take not away substances. I ought not to be accus'd of
M discarding Substance out of the reasonable World. I onely reject the Philosophic sense (wch in effect is no sense) of the word substance. Ask a man never † tainted with their jargon wt he means by corporeal substance, or the substance of Body, He shall answer Bulk, Solidity & such like sensible qualitys. These I retain. the Philosophic nec quid nec quantum nec quale whereof I have no idea I discard. if a man may be said to discard ∧ that wch never had any being was never so much as imagin'd or conceiv'd.

518 In short be not angry you lose nothing. whether
M real or chimerical wtever you can in any wise conceive or imagine be it ever so wild so extravagant & absurd much good may it ∧ do you ~~with it.~~ ~~I'll let~~ you may ∧ enjoy it for me. I'll not deprive you of it.

519 A line in the sense of Mathematicians is not meer dis-
X tance. this evident in that there are curve lines.

520 Curves perfectly incomprehensible inexplicable, absurd except
X we allow points.

I If men look for a thing where its' not to be found. be they never so sagacious it is lost labour. if a simple clumsey man know where the Game lies. He tho afoot † shall catch it sooner than the most fleet & dexterous that seek it elsewhere. Men choose to hunt for truth & knowlege any where rather than in their own Understanding where 'tis to be found. 521

1M All knowlege onely about ideas. V. Locke B.4 c. 1. 522

S It seems improper & liable to difficulties to make the Word Person stand for ~~Ideas~~ an Idea, or to make our selves Ideas or thinking things ideas. 523

I General Ideas Cause of much Trifling & Mistake. 524

X Mathematicians seem not to speak clearly & coherently of Equality. They no where define wt they mean by that word when apply'd to Lines. 525

\+ Locke says the modes of simple Ideas besides extension & number are ~~simple~~ counted by degrees. I deny there are any modes or degrees of simple Ideas. Wt He terms such are complex Ideas as I have prov'd in Green. 526

527 Wt do the Mathematicians mean by Considering Curves
X as Polygons ? either they are Polygons or they are not.
if they are why do they give them the Name of Curves ?
why do not they constantly call them Polygons & treat them
as such. If they are not polygons I think it absurd to use
polygons in their stead. wt is this but to pervert lan-
guage to adapt an idea to a name that belongs not to it
but to a different idea ?

528 The Mathematicians should look to their axiom
X Quae congruunt sunt aequalia. I know not what they
mean by bidding me put one Triangle on another. the un-
der Triangle is no Triangle, nothing at all, it not be-
ing perceiv'd. I ask must sight be judge of this Congruentia
or not. if it must then all Lines seen under the same
Angle are equal wch ~~is absurd~~ they will not acknowlege.
Must the Touch be Judge ? But ~~the~~ we cannot touch
or feel Lines & Surfaces, such as Triangles etc according to the
Mathematicians themselves. Much less can we feel a line
or Triangle that's cover'd by another Line or Triangle.

529 Do you mean by saying one triangle is equall to another that they both
X take up equal spaces. But then the Question recurs wt. mean you by equal
spaces, if you mean spatia congruentia answer the above difficulties.

I can mean nothing by equal lines but lines wch tis 530a
X indifferent whether of them I take, lines in wch I observe by my senses no difference, & wch therefore have the same Name.

X I can mean (for my part) nothing else by equal Triangles than Triangles containing equal numbers of Points. 530

Must the Imagination be Judge in the aforemention'd 531
X Case. but then Imagination cannot go beyond the Touch & Sight. Say you Pure Intellect must be Judge. I reply that Lines & Triangles are not operations of the Mind.

If I speak positively & with the air of a Math- 532
‡ ematician in things of which I am certain. tis to a-void Disputes to make Men careful to think before they censure. To Discuss my Arguments before they go to refute them. I would by no means injure truth & Certainty by an affected modesty & submission to Better Judgements. W^t^ I lay before you are undoubted Theorems not plausible conjectures of my own nor learn'd opinions of other men. I pretend not to prove them by figures, analogy or Authority. Let them stand or fall by their own Evidence.

When you speak of the Corpuscularian Essences of Bodys 533
N mem : to reflect on sect : 11 & 12 b.4.c.3. Locke.
meer
Motion supposes not solidity a ʌ Colour'd Extension may give us the Idea of ~~solidity~~ motion.

P Any subject can have of each sort of primary Qua- 534
lities but one particular at once. Lib. 4.c. 3 S 15 Locke.

Well say you according to this new Doctrine 535
all is but meer Idea, there is nothing wch is not an ens
M rationis. I answer things are as real & exist in rerum
natura as much as ever. the distinction betwixt entia
Realia & entia rationis may be made as properly
now
A as ever. Do but think before you speak. Endeavour rightly
to comprehend my meaning & you'll agree with me in this.

N ffruitless the Distinction twixt real & nominal Es- 536
sences.

We are not acquainted with the meaning of our words, 537
Real, Extension, Existence, power, matter, Lines, Infinite,
point, & ~~innum~~ many more are frequently in our mouths
when little clear & determin'd answers them in our Under-
standings. This must be well inculcated.

Vain is the Distinction twixt Intellectual & Material 538
M World V. Locke Lib. 4.c.3. S 27 where he says that is far more beauti-
full than this.

ffoolish in Men to despise the senses. if it were not ..... † 539
S.Mo. ye mind could have no knowlege no thought at all. All ..... † of
Introversion, meditation, contemplation & spiritual acts as if these

could be exerted before we had ideas from without
by the senses are manifestly absurd. This may be of
great use in that it makes the Happyness of the Life
to come more conceivable & agreeable to our present
nature. The Schoolemen & Refiners in Philosophy
Gave the Greatest part of Mankind no more
tempting Idea of Heaven or the Joys of the
Blest.

The Vast, Widespread, Universal Cause of our Mistakes. 540
X Is that we do not consider our own notions, I mean consider
them in them selves, fix, settle & determine them. We regard-
ing them with relation to each other only. In short we
are much out in study the relations of things before we
study them absolutely & in themselves. Thus we study to
find out the Relations of figures to one another, the
Relations also of Number—.without Endeavouring rightly
to understand the Nature of Extension & Number in themselves
This we think is of no concern of no difficulty but
if I mistake not tis of the last Importance.

Mo I allow not of the Distinction there is made 541
twix't Profit & Pleasure.

Mo I'd never blame a Man for acting upon Interest. he's 542
a fool that acts on any other Principle. the not understanding †
these things has been of ill consequence in Morality.

[Words] † there not so foolish neither 546a

\+ My positive Assertions are no less modest than those that are introduc'd w*th* it seems to me, I suppose etc since I declare once for all, that all I write or think is entirely about things as they appear to me. It concerns no man else any farther than his thoughts agree with mine. This in the Preface. 543

Two things are apt to confound men in their Reasonings one with another. 1st. words signifying the I operations of the mind are taken from sensible Ideas 2dly. words as Used by the Vulgar are taken in some Latitude, their signification is confused. ~~So y^t^ I~~ Hence if a man use y^m^ in a determin'd settled signification he is at a hazard either of not being understood or of speaking improperly. All this remedyed by studying the Understanding. 544

Unite no simple Idea. I have no Idea ^ meerly answering the X word one. all Number ~~is onely~~ consists in Relations. 545

\+ Entia realia & Entia rationis a foolish distinction of the Schoolemen. 546

it is of yᵉ Reality of Knowlege 549a

We have an intuitive Knowlege of the Existence 547
M.P. of other things besides our selves & even praecedaneous
to the Knowlege of our own Existence. in that we must have
Ideas or else we cannot think.

We move our Legs our selves. 'tis we that will 548
S their movement. Herein I differ from Malbranch.

MoℲX Mem: nicely to discuss Lib.4.c.4. Locke. 549

Mem: again & again to mention & illustrate the 550
M Doctrine of the Reality of Things Rerum Natura etc.

Wt I say is Demonstration, perfect Demonstration. 551
Ⱶ Whenever men have fix'd & determin'd Ideas an-
nex'd to their words they can hardly be mistaken.
M+ Stick but to my Definition of Likeness & tis a
Demonstration yt Colours are not simple Ideas. All
Reds being like etc. So also in other things. This to
be heartily insisted on.

The abstract Idea of Being or Existence is 552
E never thought of by the Vulgar. they never use those
words standing for abstract Ideas.

M	I must not say the words thing, substance etc have been the Cause of mistakes. But the not reflecting one their meaning. I will be still for retaining the words. I only desire that men would ~~speak before~~ think before they speak & settle the meaning of their words.	553
~~I~~Mo X	I approve not of that which Locke says viz truth consists in the joyning & separating of signs.	554
I	Locke cannot explain general Truth or Knowlege without treating of words & propositions. This makes for me against general Ideas — v. Locke Lib.4:ch:6.	555
I	Men have been very industrious in travelling forward they have gone a great way. But ~~no~~ few or none have gone backward beyond the Principles. On that side there lys much terra incognita to be travel'd over & discover'd by me. A vast field for invention :	556
X	Twelve inches not the same Idea with a foot. Because a Man may perfectly conceive a foot who never thought of an inch.	557

A foot is equal to or the same with twelve inches in 558
× this respect viz. the contain both the same number of points.

\+ [Forasmuch as] to be used. 559

Mem: to mention somewhat wch may Encourage 560
the study of Politiques & testify of me y^{t} ʌ I am well dispos'd toward them.

If men did not use words for Ideas they would never 561
I have thought of abstract ideas. certainly genera & species ~~stan~~ are not abstract general ideas. These include a contradiction in their nature v. Locke Lib.4 S.9.c.7.

A various or mixt ʌ cause must necessarily produce a va- 562
rious or mixt effect. This demonstrable from
\+ the Definition of a Cause. wch way of Demonstrating must be frequently made use of in my Treatise & to that end Definitions often praemis'd. Hence 'tis evident that according to Newton's Doctrines Colours cannot be simple ideas.

I am the farthest from Scepticism of any. 563
M man. I know with an intuitive knowlege
the existence of other things as well as
my own Soul. this is wt Locke nor scarce any
other Thinking Philosopher will pretend to.

Doctrine of Abstraction of very evil consequence 564
I in all the Sciences. Mem : Bacon's remark.
Entirely owing to Language.

Locke greatly out in ~~making words to be one of the~~ 565
+ ~~proper uses of~~ reckoning the recording our Ideas ~~one~~
& not
~~use of~~ by words amongst the uses ~~rather than~~ the
abuses of Language.

Of great use & yt last Importance to Con- 566
alone
I template a man put into the world ∧ wth admirable abi-
litys. & see how after long experience he would know wthout
words. Such a one would never think of Genera & Species
or abstract general Ideas.

wt advanc'd in years at all
Wonderful in Locke that he could ∧ see ∧ thro a mist yt 567
I had been so long a gathering & was consequently thick. This more
to be admir'd than yt he didn't see farther.

+ Identity of Ideas may be taken in a Double sense either as including or excluding Identity of Circumstances. such as time, place etc. 568

I am glad the People I converse with are not all richer, wiser etc than I. This is agreeable to Reason, is no sin. Tis certain that if the Happyness of my Acquaintance encreases & mine not proportionably, mine much decrease. The not understanding this & the Doctrine about relative Good discuss'd with French, Madden etc to be noted as 2 Causes of mistake in Judging of moral Matters. 569
Mo

Mem: to observe (wn you talk of the Division of Ideas into simple & complex) that there may ʌ be another cause of the Undefinableness of ʌ certain Ideas besides that which Locke gives viz. the want of Names. 570
+

Mem: To begin the 1st Book not with mention of Sensation & Reflection but instead of those † to use perception ʌ or thought in general. 571
M

S Certainly we do not know it. this will be plain if we examine wt we mean by the word knowlege. Neither doth this argue any defect in our knowlege no more than our not knowing a contradiction 576a

S I Defy any man to Imagine or conceive percep tion without an Idea or an Idea without perception 572

E Locke's very supposition that matter & motion should exist before thought is absurd, includes a manifest Contradiction. 573

X Locke's harangue about coherent, methodical Discourses amounting to nothing, apply'd to the Mathematicians. 574

X They talk of determining all the points of a Curve by an Aequation wt mean they by this. wt would they signify by the word points. Do they stick to the Definition of Euclid. 575

S We think we know not the Soul because we have no imaginable or sensible Idea annex'd to that sound. This the Effect of prejudice. 576

\+ The very existence of Ideas constitutes the soul. 577

S Consciousness, perception, existence of Ideas seem to be all one. 578

\+ Consult, ransack yt Understanding wt find you there besides several perceptions or thoughts. Wt mean you by the word mind you must mean something that you perceive ~~&~~ or yt you do not perceive. a thing not perceived is a contradiction. to mean (also) a thing you do not perceive is a contradiction. We are in all this matter strangely abused by words. 579

\+ Mind is a congeries of Perceptions. Take away Perceptions & you take away the Mind ~~take~~ put the Perceptions & you put the mind. 580

\+ Say you the Mind is not the Perceptions. but that thing wch perceives. I answer you are abus'd by the words that & thing these are vague empty words † without a meaning. 581

582 The having Ideas is not the same thing with Perception. a Man
S may have Ideas when he only Imagines. But then this Imagination presupposeth Perception.

583 That wch extreamly strengthens us in prejudice is yt
M. we think we see an empty space. wch I shall Demonstrate to be false in the 3d Book.

584 There may be Demonstrations used even in Divinity.
† I mean in reveal'd Theology, as contradistinguish'd from natural. for tho the Principles may be ∧ founded in Faith yet this hinders not ∧ but that legitimate Demonstrations might be ~~drawn~~ built thereon. Provided still that we define the words we use & never go beyond our Ideas. Hence 'twere no very hard matter for those who hold Episcopacy or Monarchy to be establish'd jure Divino. to demonstrate their Doctrines if they are true. But to pretend to demonstrate or reason any thing about the Trinity is absurd here an implicit Faith becomes us.

585 Qu: if there be any real Difference betwixt certain
S Ideas of Reflexion & others of Sensation. e.g. 'twixt perception & white, black, sweet etc. wherein I pray you does the perception of white differ from white. Mea.....†

586 I shall Demonstrate all my Doctrines. the Nature of Demonstration to be set forth & insisted
+ on in the Introduction. In that I must needs differ from Locke ∧ forasmuch as he makes all Demonstration to be about abstract Ideas wch I say we have not nor can have.

587 The Understanding seemeth not to differ from its ∧ perceptions
S or Ideas. Qu: wt must one think of the Will & passions.

588 A good Proof that Existence is nothing without or
E distinct from Perception may be Drawn from Considering a Man put into the World without company.

589 E There was a smell i.e. there was a smell perceiv'd. Thus we see that common speech confirms my Doctrine

590 No broken Intervals of Death or Annihilation.
T Those Intervals are nothing. Each Person's time being measured to him by his own Ideas.

We are frequently puzzl'd & at a loss in obtaining clear & 591
I determin'd meanings of words commonly in use. & that because we imagine words stand for general Ideas which are altogether inconceivable.

A stone is a stone. this a nonsensical Proposition. 592
I & such as the Solitary Man would never think on. nor do I believe he would ever think on this viz. The whole is equal to its' Parts. etc.

Let it not be said that I take away Existence. I 593
E onely declare the meaning of the Word so far as I can comprehend it.

I If you take away abstraction, how do men differ 594
by shape rather by Degrees of more & less
from Beasts. I answer ʌ. By Language ~~chiefly~~ ʌ.

+ W^t^ means Locke by inferences in words, consequences 595
of Words as somthing different from consequences of Ideas. I conceive no such thing.

I N.B. Much Complaint about the Imperfection of 596
Language.

n inert thoughtless

But perhaps some man may say a ʌ substance may exist 597
tho' not extended, moved etc. but w*th* other properties whereof
M we have no Idea. But even this I shall demonstrate to be
Impossible w*n* I come to treat more particularly of Existence.

\+ Will not rightly distinguish'd from Desire by Locke. it 598
seeming to superadd nothing to the Idea of an Action
but the Uneasiness for its' absence or non Existence.

Mem : to enquire diligently into that strange Mistery viz. 599
How it is that I can cast about, think of this or that
S Man, place, action w*n* nothing appears to Introduce
them into my thoughts. w*n* they have no perceivable connexion
w*th* the Ideas suggested by my senses at the present.

Tis not to be imagin'd w*t* a marvellous emptiness & 600
I scarcity of Ideas that man shall descry who will lay aside
all use of Words in his Meditations.

M Incongruous in Locke to fancy we want a sense 601
proper to see substances withal.

I Locke owns that Abstract Ideas were made in order to naming. 602

The common Errour of the Opticians, that we judge 603
[1]XM of Distance by Angles strengthens' men in their prejudice that they see things without and distant from their mind.

I am persuaded would Men but examine wt they mean 604
E by the Word Existence they wou'd agree with me.

c.20 S.8 B.4 of Locke makes for me against 605
X the Mathematicians.

The supposition that things are distinct from Ideas takes 606
M away all real Truth, & consequently brings in a Universal Scepticism, since all our knowlege & contemplation is confin'd barely to our own Ideas.

Qu: whether the Solitary Man would not find it ne- 607
I cessary to make use of words to record his Ideas if not in memory or meditation yet, at least, in writing without which he could scarce retain his Knowlege.

S. It is not so very evident that an Idea or at least Uneasiness may be without all Volition or act. 611a

* The Understanding taken for a faculty is not really distinct from ye Will. 614a

* This alter'd hereafter 615a

608 We read in History there was a time when fears & jea-
+ lousies, Privileges of Parliament, Malignant Party & such like expressions of too unlimited & doubtfull a meaning were words of much sway. Also the Words Church, Whig, Tory etc. contribute very much to faction & Dispute.

609 The Distinguishing betwixt an Idea and perception
S of the Idea has been one great cause of Imagining material substances.

610 That God & Blessed Spirits have Will is a mani-
S fest Argument against Lockes proofs that the will cannot be conceiv'd put into action without a Previous Uneasiness.

611 The act of the Will or volition is not uneasiness for that
S uneasiness may be without volition.

S 612 Volition is distinct from the object or Idea for the same reason.

S 613 Also from uneasiness & Idea together.

* 614 the Understanding not distinct from particular perceptions or Ideas.

* 615 The Will not distinct from ~~idea~~ Particular volitions.

S To ask whether a man can will either side is an absurd question. for they word can presupposes volition. 616

N Anima Mundi. Substantial fforms, Omniscient radical Heat. Plastic vertue. Hylarchic principle. All these vanish. 617

M Newton proves that gravity is proportional to gravity. I think that's all. 618

\+ Qu: whether it be the vis inertiae that makes it difficult to move a stone or the vis attractrix or both or neither. 619

Mem: to express the Doctrines as fully & copiously & clearly as may be. also to be full and particular in answering objections. 620

S To say $^{y^t}$ ʌ Will is a power. Volition is an act. This is idem per idem. 621

\+ W^t makes men despise ~~the~~ extension motion etc & separate them from the ~~Ideas~~ essence of the soul is that they imagine them to be distinct from thought & to exist in unthinking substance. 622

+	An extended may have passive modes of thinking, not active	623
+	There might be Idea, there might be uneasiness. there might be the greatest uneasiness. w*th*out ▬ any volition. therefore the	624
M.+	Matter once allow'd. I defy any man to prove that God is not matter.	625
S	Man is free. There is no difficulty in this proposition if we but settle the signification of the word free, if we had an Idea annext to the word free & would but contemplate that Idea.	626
S	We are imposed on by the words, will, determine, agent, free, can etc.	627
S	Uneasiness precedes not every Volition. This evident by experience.	628
S	Trace ▬ an Infant in the Womb. mark the train & Succession of its Ideas. observe how volition comes into the Mind. This may perhaps acquaint you with its nature.	629
S	Complacency seems rather to determine or precede or coincide w*th* & constitute the Essence of volition than uneasiness.	630

631 You tell me according to my Doctrine a Man
S is not free. I answer. tell me wt you mean
by the word free & I shall resolve you.

632 Qu: wt do men mean when they talk of one
N Body's touching another. I say you never saw
one Body touch. or (rather) I say I never saw
one Body that I could say touch'd this or that other.
for that if my optiques were improv'd I should see
intervalls & other bodies ~~wch~~ betwixt those wch
now seem to touch.

633 Mem: upon all occasions to use the Utmost
X Modesty. to Confute the Mathematicians wth the
utmost civility & respect. not to stile them Nihilari
ans etc :

634 N.B. to rein in yt Satyrical nature.

635 Tis folly to define volition an act of the
S mind ordering. for ~~both~~ neither act ~~and~~ nor ordering can
themselves be understood without Volition.

Blame me not if I use my words sometimes in some latitude. 'tis wt cannot be helpt. Tis the fault of Language that you cannot always apprehend the clear & determinate meaning of my words. 636

Say you there must be a thinking substance. Som- 637
+ thing unknown wch perceives & supports & ties together the Ideas. Say I, make it appear there is any need of it & you shall have it for me. I care not to take away any thing I can see the least reason to think should exist.

I affirm 'tis manifestly absurd. no excuse in yt world can 638
+ be given why a man should use a word without an idea. Certainly we shall find that wtever word we make use of in matter of pure reasoning has or ought to have a compleat Idea annext to it. i.e: its' meaning or the sense we take it in must be compleatly known.

Tis demonstrable a Man can never be brought to Imagine 639
+ any thing should exist whereof he has no Idea. Whoever says he does, banters himself with Words.

We Imagine a great difference & distance in respect of 640
G Knowlege, power &c betwixt a Man & a Worm. the like dis-
tance †

betwixt Man & God may be Imagin'd. or Infinitely greater.

We find in our own minds a great Number of ^different^ Ideas. We 641
G may Imagine in God a Greater Number. i.e. that Our's in
Number or the Number of ours is inconsiderable in respect
thereof. The Words difference & number old & known we
apply to that w^ch^ is unknown. but I am embrangled in
words. tis scarce possible it should be otherwise.

^the chief thing^
~~All~~ I do or pretend to do is onely to remove 642
the mist or veil of Words. This has occasion'd Ignorance &
confusion. This has ruin'd the Scholemen & Mathema-
ticians, Lawyers & Divines.

The grand Cause of perplexity & darkness in 643
treating of the Will, is that we Imagine it to be
S ^an^ ~~the~~ object of thought (to speak w^th^ the vulgar), we think we
may perceive, contemplate & view it like any of our Ideas
whereas in truth 'tis no idea. Nor is there any Idea
of it. tis toto coelo different from the Understanding i.e.
from all our Ideas. If you say the will or rather a Voli-
tion is something I answer there is an Homonymy in
the word ~~will~~ thing w^n^ apply'd to Ideas & volitions & un-
derstanding & will. all ideas are passive, volitions active . . .†

Thing & Idea are much wt words of the same extent & meaning. 644
S why therefore do I not use the word thing ? Answ: because thing is of greater latitude than Idea. Thing comprehends also volitions or actions. now these are no ideas.

S There can be perception without volition. Qu: whether 645
there can be volition without perception.

E Existence not conceivable without perception or volition not 646
. distinguish'd therefrom.

N.B. severall distinct Ideas can be perceiv'd by 647
T Sight & Touch at once. not so by the other senses. 'Tis this diversity of sensations in other senses chiefly but sometimes in touch & sight (as also diversity of volitions whereof there cannot be more than one at once, or rather it seems there cannot for of that I doubt) gives us the Idea of Time. or is Time it self.

X Wt would the Solitary Man think of number ? 648

S There are innate Ideas i.e. Ideas created with us. 649

S Locke seems to be mistaken wn he says thought is not 650
essential to the mind.

S Certainly the mind always & constantly thinks & we know this too In 651

Sleep & trances the mind exists not there is no time no succession of Ideas.

S To say the mind exists' without thinking is a Contradiction, nonsense, nothing. 652

Folly to enquire wt determines the Will. Uneasiness etc 653
S are Ideas, therefore unactive, therefore can do nothing therefore cannot determine the Will.

S Again. wt mean you by determine ? 654

for want of rightly Understanding, time, motion, exis- 655
N.T. tence etc Men are forc'd into such absurd contradictions as this v.g. light moves 16 diameters of Earth in a second of Time.

Twas the opinion that Ideas could exist unperceiv'd 656
or before perception that made Men think perception was
S somewhat different from the Idea perceived, yt it was an
of
Idea of Reflexion whereas the thing perceiv'd was an idea ʌ Sensation. I say twas this made 'em think the understanding took it in receiv'd it from without wch could never be did not they think it existed without.

properly speaking Idea is the picture of the Imagination's making ∧ 657a
M this is ye likeness of & refer'd to the real Idea or (if you will) thing.

S particles stand for volitions & their concomitant Ideas 661a

S To ask have we an idea of ∧ y^e^ Will or volition ∧ is nonsense. an idea can resemble nothing but an idea. 657

If you ask w^t^ ∧ thing ∧ it is that wills. I answer if you mean Idea by the 658
S Word thing or any thing like any Idea, then I say tis no thing at all that ~~thinks~~ wills'. This how extravagant soever it may seem yet is a certain truth. we are cheated by these general terms, thing, is etc.

Again if by is you mean is perceived or dos' perceive. I say 659
S+ nothing w^ch^ is perceived or does perceive Wills.

The referring Ideas to things w^ch^ are not Ideas, the 660
S using the Term, Idea of, is one great cause of mistake, as in other matters so also in this.

Some words there are w^ch^ do not stand for Ideas 661
S v.g. particles Will etc

+ There seem to be but two Colours w^ch^ are 662
simple Ideas. viz. those exhibited by the most & least refrangible Rays. being the Intermediate ones may be formed by composition.

I have no Idea of a Volition or act of the mind neither 663
S has any other Intelligence for that were a contradiction.

N.B. Simple Ideas viz. Colours are not devoid of all 664
+ sort of Composition. tho it must be granted they are not made up of distinguishable Ideas, yet there is another sort of composition. Men are wont to call those things compounded in which we do not actually discover the component ingredients. Bodies are said to be compounded of Chymical Principles wch nevertheless come not into view till after the dissolution of the Bodies. & wch were not could not be discerned in the Bodies whilst remaining entire.

If by Idea you mean object of the Understanding. 665
S Then certainly the Will is no Idea, or we have no idea annext to the word Will.

All our knowlege is about particular ideas according to 666
I Locke. All our sensations are particular Ideas as is evident. wt use then do we make of general Ideas, since we neither know, nor perceive them.

Tis allow'd that Particles stand not for Ideas & yet 667
S they are not said to be
~~there not~~ empty useless sounds. The truth on't is they stand for the operations of the mind i.e. volitions.

Locke says all our knowlege is about Particulars. if so, pray 668
wt is the following ratiocination but a jumble of -
‡ words Omnis Homo est animal, omne animal vivit, ergo
omnis Homo vivit. it amounts (if you annex particular Ideas
Mo. to the Words animal & vivit) to no more than this. Omnis Homo est
Homo, omnis Homo est Homo, ergo omnis Homo est Homo. A ~~perfect~~ mere
Sport & trifling with sounds.

Mo We have no Ideas of vertues & vices, no Ideas of Moral 669
Actions wherefore it may be Question'd whether we
are capable of arriving at Demonstration about them,
the morality consisting in the Volition chiefly.

Strange it is that Men should be at a loss to find 670
E their Idea of Existence since that (if such there ʌ be distinct
from Perception) it is brought into the mind by all the Ways
of Sensation & Reflection ; methinks it should be most familiar
to us & we best Acquainted with it.

This I am sure I have no such ʌ idea of Existence or an- 671
E next to the Word Existence. & if others have that's nothing to me.
they can Never make me sensible of it, simple Ideas being un-
communicable by Language.

S There is somewhat active in most perceptions i.e such as ensue upon our Volitions, such as we can prevent & stop v.g I turn my eyes towards the Sun I open them all this is active. 672a

672 Say you the unknown substratum of Volitions &
S Ideas, is somthing whereof I have no Idea. I ask is there
any other Being wch has or can have an Idea
of it. if there be then it must be it self an Idea
wch you will think absurd.

673 Things are two-fold active or inactive, The
S Existence of Active things is to act, of inactive to
be perceiv'd.

674 Distinct from or without perception there is no
S.E. volition ; therefore neither is their existence without
perception.

675 God May comprehend all Ideas ~~&~~ even the Ideas wch
G are painfull & unpleasant without being in any degree
pained thereby. Thus we our selves can imagine the pain of
a burn etc without any misery or uneasiness at all.

676 ✝ Truth. three sorts thereof Natural, Mathematical
N Mo.✕ & Moral.

677 Mo Agreement of relation onely where Numbers do obtain. of
✝✕ Coexistence in nature, of signification or Including or thinking
by Including in Morality.

Gyant who shakes the Mountain that's on him must be 678
acknowleg'd. I or rather Thus. I am no more to be reckon'd
I stronger than Locke than a pigmy should be reckon'd
stronger than a Gyant because he could throw of the Mole-
hill wch lay upon him, & the Gyant could onely shake
or shove the Mountain that oppresed him. This in the Pre-
face.

Promise to extend our knowlege & clear it of those 679
I shamefull Contradictions wch Embarrass it. Something like
this to begin the Introduction in a modest way.

Whoever shall pretend to censure any part—I desire 680
I He would read out the Whole, else he may per-
haps not understand me. in the Preface or Introd:

S Doctrine of Identity best explain'd by Takeing the 681
Will for Volitions, the Understanding for Ideas. ~~If once~~
The difficulty of Consciousness of wt are never acted etc †
solv'd thereby.

I must acknowlege my self beholding to the Philosophers have 682
I gone before me. They have given good rules tho perhaps they do
not always observe them. Similitude of Adventurers who tho they them
selves

M On second thoughts I am, on t'other extream I am certain of that wch Malbranch seems to doubt of. viz the existence of Bodies. 686a

attained not the desir'd Port, they by their wrecks have
made known the Rocks & sands, whereby the Passage of after-
comers is made more secure & easy. Pref: or Introd:

683 The opinion that men had Ideas of Moral actions
Mo has render'd the Demonstrating ▬ Ethiques very ~~perplex'd.~~ dif-
ficult to them.

684 S An Idea being it self unactive cannot be the resem-
blance or image of an Active thing.

685 Excuse to be made in the Introduction ~~to be made~~ for
I the using the Word Idea viz. because it has obtain'd. But a
Caution must be added.

686 Scripture & possibility are the onely proofs with Malbranch
✳ add to these ▬ wt he calls a great propension to think so.
this perhaps may be question'd. ~~I cant conceive how a man should be inclin'd to think any thing does exist whereof he has no Idea.~~
perhaps men if they think before they speak will not be found so
thoroughly perswaded of the Existence of Matter.

687 Mem: to bring the killing blow at the last v.g. in the
I.&c. matter of Abstraction to bring Lockes general triangle at the
last.

688 They give good rules tho perhaps they themselves do not always
I observe them. they speak much of clear & distinct Ideas.
tho at the same they talk of General, abstract ideas etc I'll in
[stance]

in Lockes opinion of abstraction he being as clear a writer
as I have met with. Such was the Candour of this great Man
that I perswade my Self were he alive. he would not
be offended that I differ from him seeing that even in so doing.
I follow his advice viz. to use my own Judgement, see with
my own eyes & not with anothers. Introd:

The word thing as comprising or standing for ~~an~~ 689
S Idea & volition usefull. as standing for Idea and Archetype
without the Mind Mischievous & useless.

To demonstrate Morality it seems one need only 690
Mo make a Dictionary of Words & see which included which.
at least. This is the greatest part & bulk of the Work.

Lockes instances of Demonstration in Mora- 691
IMo. lity are according to his own Rule trifling Propositions.

Qu: How comes it that some Ideas are confessedly allow'd by 692
P.S. all to be onely in the mind, & others ~~generally~~ as generally taken to be
without the mind. if according to you All are equally & only in the mind.
Ans. because ~~those that are plea~~ that in proportion to the Pleasure &
pain Ideas are attended with desire aversion & other actions w<u>ch</u> include vo-
lition now volition is by all grant'd to be in Spirits.

If Men would lay aside words in thinking 'tis impossible they 693
I should ever mistake save only in Matters of Fact. ~~-or Conject-~~——
I mean it seems impossible they should Be positive & secure
~~-of any-~~ that any thing was true wch in truth is not so. certainly
I cannot err in matter of simple perception. ~~-except th~~ so far
as we can in reasoning go without the help of signs there we
have certain knowlege. indeed in long deductions made by signs there
may be slips of Memory.

MO. From my Doctrine there follows a cure for Pride. we are 694
be
only to ʌ praised for those things wch are our own, or of our own
Doing, Natural Abilitys are not consequences of Our Volitions.

candidly
M Mem: ʌ to take Notice that Locke holds some dangerous 695
& eternity
opinions. such as the Infinity ʌ of space. The Possibility of Matter's
Thinking.

Once more I desire my Reader may be upon his guard a- 696
I gainst the Fallacy of Words, Let him beware that I do not impose
on him by plausible empty talk that common dangerous way of cheating
men into absurditys. Let him not regard my Words any otherwise than
significations
as occasions of bringing into his mind determin'd ~~ideas~~ so far as they
fail of this they are Gibberish, Jargon & deserve not the name
~~intreat him to make my Book the occ-~~
of Language. I ~~ask~~ [redacted] desire &
warn him not to expect to find truth in my Book or any where
but in

his own Mind. w*t*ever I see my self tis impossible I can paint it out in words.

N.B. To Consider well w*t* is meant by that w*ch* Locke saith 697
Mo. Concerning Algebra that it supplys intermediate Ideas. Also to think of a Method affording the same use in Morals etc that this doth in Mathematiques.

Homo is not proved to be Vivens by means of any inter- 698
ǂ mediate Idea. I dont fully agree w*th* Locke in w*t* he says
Mo concerning Sagacity in finding out Intermediate Ideas in Matter capable of Demonstration & the use thereof; as if that were
X the onely Means of Improving & enlarging Demonstrative Knowlege.

There is a difference betwixt Power & Volition. There 699
S may be volition without Power. But there can be no Power without Volition. Power implyeth volition & at the same time a Connotation of the Effects following the Volition.

We have assuredly an Idea of substance. twas absurd 700
M.S of Locke to think we had a name without a Meaning. this might prove Acceptable to the Stillingfleetians.

M.S The substance of Body we know, the substance of Spirit we do not 701
know it not being knowable. it being purus actus.

I Words have ruin'd & over run all the Sciences, Law Physique ~~etc~~ Chymistry, Astrology. etc 702

Abstract Ideas only to be had amongst the Learned. The 703
I Vulgar never think they have any such, nor truly do they find any want of them. Genera & Species & abstract Ideas are terms unknown to them.

Locke's out. The case is different. we can have an Idea of 704
S Body without motion, but not of Soul without Thought.

Mo. God Ought to be worship'd. This Easily demonstrated when once we ascertain the signification of the word God, worship, ought. 705

No Perception according to Locke is active. Therefore no perception 706
S (i.e. no Idea) can be the image of or like unto that wch is altogether active & not at all passive i.e. the Will.

I can will the calling to mind somthing that is 707
past, tho at the same time that wch I call to mind
S was not in my thoughts before that Volition of mine, & consequently I could have had no uneasiness for the want of it.

S The will & the Understanding may very well 708
be thought two distinct beings.

S Sed quia voluntas raro agit nisi ducente desiderio. v. Locke's Epistles p. 479 ad Limburgum. 709

710 You cannot say the M.T. is like or one with the M.V.
1X3 because they be both Minima, just perceiv'd & next door to
nothing. You may as well say the M.T. is the same with
or like unto a sound so small that it is scarce perceiv'd.

711 Extension seems to be a Mode of some tangi
+ ble or sensible quality according as it is seen or felt.

712 The Spirit the Active thing that wch is Soul & God
S is the Will alone The Ideas are effects impotent things.

713 The Concrete of of the Will & understanding I must
S call ~~the~~ Mind not person, lest offence be given, there being
but one volition acknowleged to be God. Mem: Carefully
to omit Defining of Person, or making much mention of it.

S 714 You ask do these volitions make one Will. wt you
ask is meerly about a Word. Unite being no more.

715 N.B. To use utmost Caution not to give the least Handle
of offence to the Church or Church-men.

716 Even to speak somwhat favourably of the Schoolmen &
I shew that they who blame them for Jargon are not free from
it themselves. Introd:

+ 717 Locke's great oversight seems to be that he did not
Introd Begin wth his Third Book at least that he had not some thought
of it at first. Certainly the 2 1st books don't agree wth wt he says in ye 3d.

of beards
If Matter is once allow'd to exist Clippings ʌ & parings of nails 718
M may Think for ought that Locke can tell Tho he seems positive of the Contrary.

Since I say men cannot mistake in short reasoning about 719
ǂ things demonstrable if they lay aside words. it will be expected
treatise
This ʌ will Contain nothing but wt is certain & evident Demonstration. & in truth I ~~think it contains~~ Hope you will find nothing in it but wt is such. certainly I take it all for such. Introd:

When I say I will reject all Propositions wherein I know 720
so far as knowable
I not ~~the full~~ fully & adequately & clearly ʌ the Thing meant thereby This is not to be extended to propositions in the Scripture. I speak of Matters of Reason & Philosophy not Revelation, In this I think an Humble Implicit faith
comprehend &
becomes us just (where we cannot ~~fully~~ Understand the proposition) such as a popish peasant gives to propositions he hears at Mass in Latin. This proud men may call blind, popish, implicit, irrational. for my part I think it more irrational
holy mysteries i.e propositions about things out of our reach
to pretend to dispute at cavil & ridicule ~~things~~ that are altogether above our knowlege out of our reach. wn I shall come to plenary knowlege of the meaning of any Text then I shall yield an explicit belief. Introd.

\+ Complexation of Ideas twofold. yᵉ refers to colours being complex Ideas. 721

X Cõsidering length without breadth is considering any length be the Breadth wᵗ it will. 722

I may say earth, plants etc were created before Man 723
M there being other intelligences to perceive them before Man was created.

There is a Philosopher who says we can get an 724
idea of substance by no way of Sensation or Reflection. & ʌ imaseems to
M gines that we want a sense proper for it. Truly if we had a new sense it could only give us a new Idea. now I suppose he will not say substance according to him is an Idea. for my part I own I have no Idea can stand for substance in his or yᵉ Schoolmen's sense of that word. But take it in the common vulgar sense & then we see & feel substance.

N.B. That not common usage but the Schools 725
E coined the Word Existence supposed to stand for an abstract general Idea.

I & complex Ideas wch tho' unknown before may be signify'd by Language. 727a

Mo† A i.e without other Ideas than the Words & their standing for one idea i.e. their being to be used indifferently. 730a

* this seems wrong certainty A is of sensible Ideas pro hic & nunc. I may be certain without affirmation or negation. real certainty 731a

¹X Writers of Optics mistaken in their principles both in judging of Magnitudes & distances. 726

Tis evident yt wn the Solitary man should be taught to 727
I speak the words would give him no other new Ideas (save only the sounds) beside wt he had before. If he had not could not have an abstract Idea before, he cannot have it after he is taught to speak.

Mo Homo est Homo etc comes at last to Petrus est Petrus etc 728
I Now if these identical Propositions are sought after in the Mind they will not be found. there are no identical mental Propositions tis all about sounds & terms.

Mo Hence we see the Doctrine of Certainty by Ideas & prov- 729
I ing by intermediate Ideas comes to Nothing.

IMO We may have certainty & knowlege without Ideas ʌ. 730
X

It seems to me that we have no certainty about Ideas. 731
* but onely about words. tis improper to say I am
I certain I see, I feel etc. there are no Mental
Mo propositions form'd answering to these Words & in sim-
X ple perception tis allowed by all there is no affirmation or negation & consequently no certainty.

so well
Mo The reason why we can demonstrate ~~only~~ about signs 732
I is that they are perfectly arbitrary & in our power, made
X at pleasure.

Mo X‡ The Obscure ambiguous term Relation wch is said to be the largest field of Knowlege confounds us, deceives us. 733

Let any Man shew me a Demonstration not verbal ∧ that does not depend either on some false principle or at best on some principle of Nature which is yt ∧ effect of God's will and we know not how soon it may be changed. Mo X‡ 734

I Qu: wt becomes of the aeternae veritates? Anst they vanish. 735

I But say you I find it very difficult to look beneath the words & uncover my Ideas. Say I use will make it easy. In the sequel of My Book the Cause of this difficulty shall be more clearly made out. 736

I To view the deformity of Errour we need onely undress it. 737

E Cogito ergo sum, Tautology, no mental Proposition. answering thereto. 738

‡ N Mo X Knowlege or certainty or perception of agreement of Ideas as to Identity & diversity & real existence Vanisheth of relation becometh meerly Nominal of Coexistence remaineth. Locke thought in this later our knowlege was little or nothing whereas in this onely real knowlege seemeth to be found. 739

PHM We must w*th* the Mob place certainty in the senses. 740

\+ Tis a mans duty, tis the fruit of friendship, to speak well of his friend, wonder not therefore that I do w*t* I do. 741

A Man of slow Parts may overtake Truth &c Introd: 742

I Even my shortsightedness might perhaps be aiding to me in this Matter, twill make me bring the object nearer to my thoughts. A Purblind Person etc Introd:

Locke to Limborch etc Talk of Judicium Intell- 743

S ectus preceding the Volition I think Judicium includes Volition I can by no means distinguish ~~be-twixt~~ these Judicium, Intellectus, indifferentia, Unso many things easiness ʌ accompanying or preceding every Volition as e.g. the motion of my hand.

you

S Qu : w*t* mean ʌ by My perceptions, my Volitions ? Res, 744

or conceive etc all the perceptions I perceive ʌ are mine, all the Volitions I am Conscious to are mine.

S Homo est agens liberum. w*t* mean they by Homo 745 & agens in this place ?

Will any man say that Brutes have ye ∧ ideas, unity & Exis- 746
E tence ? I believe not. yet if they are suggested by all the ways of sensation, tis strange they should want them.

It is
■■ a strange thing & deserves our attention, that the 747
I more time & pains men have consum'd in the study of Philosophy by so much the more they look upon themselves to be ignorant & weak Creatures, they discover flaws & imperfections in their Faculties wch Other Men never spy out. they find themselves under a Necessity of admitting many inconsistent irreconcilable opinions with their hand or behold with their eyes
~~things~~ for true. There is nothing they touch ~~or handle~~ but has & at length turn scepticks at least in most things
its dark sides much larger & more numerous than wt is perceiv'd. ∧ etc I imagine all this proceeds from etc Exord: Introd:

These men with a supercilious Pride disdain the common 748
single informations of sense. they grasp at Knowlege by sheaves
I & bundles ('tis well if catching at two much at once they hold nothing but emptyness & air). they in ~~profound meditation contem~~ ye depths of their understanding Contemplate Abstract Ideas. etc Introduction

It seems not improbable that the most comprehensive & sublime 749
1X2 Intellects see more M.V.s at once i.e. that their Visual spheres are the largest.

Words (by them meaning all sort of signs) are so neces- 750
ǂ sary that instead of being (wn duly us'd or in their own Nature)
X prejudicial to the Advancement of knowlege, or an hindrance
to knowlege that without them there could in Mathematiques
themselves be no demonstration.

Mem: To be eternally banishing Metaphisics &c 751
& recalling Men to Common Sense.

We cannot Conceive other Minds besides our own but 752
S as so many selves. We suppose ourselves affected with such
& such thoughts & such & such sensations.

Qu: whether Composition of Ideas be not that fa- 753
S.I. culty which chiefly serves to discriminate us from Brutes.
I question whether a Brute ~~can or~~ does or can imagine
a Blue Horse or Chimera.

Naturalists do not distinguish betwixt Cause & occa- 754
N sion. Useful to enquire after coexisting Ideas or occasi-
ons.

Mo. Morality may be Demonstrated as mixt Mathematics. 755

S Perception is passive but this not distinct from Idea therefore there can be no Idea of volition. 756

M+ Why I use not the Word thing instead of Idea ? Intr. 757

X Algebraic Species or letters are denominations of Denominations, therefore Arithmetic to be treated of before Algebra. 758

X 2 Crowns are called ten shillings hence may appear the nature of Numbers. 759

Complex Ideas are the Creatures of the Mind. hence 760
X may appear the Nature of Numbers. this to be deeply discuss'd.

I am better inform'd & shall know more by telling 761
X me there are 10000 men than by shewing me them all drawn up. I shall better be able to judge of the Bargain ∧ you'd have me make wⁿ you tell me how much (i.e. the name of yᵉ) mony lies on yᵉ Table than by offering & shewing it without naming. In short I regard not the Idea the looks but the names. hence may appear the Nature of Numbers.

762 Children are unacquainted with Numbers till they have
X made some Progress in language. This could not be if they were Ideas suggested by all the senses.

763 X Numbers are nothing but Names, never Words.

764 X Mem: Imaginary roots to unravel that Mystery.

765 X Ideas of Utility are annexed to Numbers.

766 X In Arithmetical Problems Men seek not any Idea of Number. they onely seek a Denomination. this is all can be of use to them.

767 X Take away the signs from Arithmetic & Algebra, & pray w*t* remains ?

768 These are sciences purely Verbal, & entirely useless
X but for Practise in Societys of Men. No speculative knowlege, no comparing of Ideas in them.

769 Mo. Sensual Pleasure is the Summum Bonum. This the Great Principle of Morality. This once rightly understood all the Doctrines even the severest of the [Gospels] † may cleerly be Demonstrated.

X Qu: whether Geometry may not be properly reckon'd, among the Mixt Mathematics. Arithmetic and Algebra being the only abstracted pure i.e. entirely Nominal. Geometry being an application of these to Points. 770

+XMo Locke of Trifling Propositions. Mem: well to observe & con over that chapter. 771

E.X Existence, Extension etc are abstract i.e. no ideas. they are words unknown & useless to the Vulgar. 772

Mo. Sensual Pleasure qua Pleasure is Good & desirable. by a Wise Man. but if it be Contemptible tis not quâ pleasure but qua pain or Cause of pain. or (w*ch* is the same thing) of loss of greater pleasure. 773

I W*n* I consider the more objects we see at once the more distant they are, & that Eye w*ch* beholds a great many things can see none of them near. 774

I.M By Idea I mean any sensible or imaginable ~~thing or intelligible thing~~ thing. 775

776 Agreeable to my Doctrine of Certainty He that
S acts not in order to the obtaining of eternal Happyness must be an infidel at least he is not certain of a future Judgement.

777 To be sure or certain of wt we do not actually per-
S ceive (I say perceive not imagine) We must not be altogether Passive, there must be a disposition to act, there must be assent, wch is active, nay wt do I talk There must be Actual Volition :

778 Wt do we demonstrate in Geometry but that
X lines are equal or unequal i.e. may or may not be called by the same name ?

779 I approve of this axiom of the Schoolemen
I.M. nihil est in intellectu quod non prius fuit in sensu. I wish they had stuck to it. it had never taught them the Doctrine of Abstract Ideas.

780 Nihil dat quod non habet or the effect is con-
S.G. tained in yᵉ Cause is an axiom I do not Understand or believe to be true.

781 Whoever shall cast his eyes on the writings of
E Old or New Philosophers & see the Noise is made about
formal & objective Being Will etc.

782 Absurd to Argue the Existence of God from
G his Idea. we have no Idea of God. tis impossible !

783 Cause of much errour & Confusion that Men
M.E. Knew not. wt was meant by Reality.

784 Descartes in Med: 2. say's the Notion of this par-
I ticular wax is less clear than that of Wax in General.
& in the same Med: a little before he forbears to
Consider Bodies in general because (says he) these Gen-
eral Conceptions are usually confused.

785 M.S. Descartes in Med: 3 Calls himself a thinking
substance & a stone an extended substance. & adds
that they both agree in this that they are substances.
& in the next paragraph he Calls extension a Mode
of substance.

786 Tis commonly said by the Philosophers that
S if the soul of Man were self existent it would have given
it self all possible perfection. this I do not understand.

Mo Mem. to excite men to the pleasures of the Eye & the Ear wch surfeit not, nor bring those evils after them as others. 787

S We see no variety or difference betwixt the Volitions, only between their effects. Tis One Will one Act distinguish'd by the effects. This will, this Act is the Spirit, operative, Principle, Soul etc. 788

No mention of fears & jealousies, nothing like a party. 789

M. Locke in his 4th book & Descartes in Med. 6. use the same argument for the Existence of objects viz. that sometimes we see feel etc against our will. 790

S While I exist or have any Idea I am eternally, constantly willing, my acquiescing in the present State is willing. 791

E The Existence of any thing imaginable is nothing different from Imagination or perception. Volition or Will ∧ wch is not imaginable regard must not be had to its' existence at least in the first Book. 792

Also of non-coexistence as Gold is not blue. 793a

There are four sorts of Propositions. Gold is a Metall, 793
Mo. Gold is yellow ; Gold is ~~fusible~~ fixt, ʌ Gold is not a stone.
of wch ye 1st 2d & 3d are only Nominal & have
no mental propositions answering them.

Mem. in vindication of the senses effectually 794
M to confute wt Descartes saith in ye last par. of the
last Med: viz. that the senses oftener inform him fals-
ly than truely. That sense of pain tells me
not my foot is bruised or broken but I having
viz
frequently observed these two Ideas ʌ of that peculiar
pain & bruised foot go together do erroneously
take them to be inseparable by a necessity
of Nature as if Nature were any thing but the
Ordinance of the free Will of God.

Descartes owns we know not a substance immediately 795
M.S. by it self but by this alone that it is the subject
of several acts. Answer to 2d objection of Hobbs.

Hobbs in some degree falls in wth Locke 796
S saying thought is to the Mind or him self as dancing
to the Dancer. object:

Hobbs in his object. 3. ridicules those expressi- 797
S ons of the Scholastiques the Will wills etc so does
Locke. I am of another Mind.

Descartes in answer to Object: 3. of Hobbs owns 798
S he is distinct from thought as a thing from its modus
or manner.

Opinion that existence was distinct from per- 799
E.S. ception of Horrible Consequence it is the founda-
tion of Hobbs's doctrine. etc.

Malbranch in his Illustration differs widely from me 800
M.P.E. He doubts of the existence of Bodies I doubt not in
the least of this.

I differ from the [redacted] Cartesians in that I 801
P make extension, Colour etc to exist really in Bodies &
independent of Our Mind. All y^{e} carefully & lucidly to be set forth.

M.P Not to mention the Combinations of Powers but to say the things the effects themselves to really exist even wn not actually ~~seen~~ perceiv'd but still with relation to perception. 802

X The great use of the Indian figures above the Roman shews Arithmetic to be about Signs not Ideas, or not Ideas different from the Characters themselves. 803

Mo.X Reasoning there may be about things or Ideas 804

N Actions

ʌ but Demonstration can be only Verbal. I question, no matter etc

G Quoth Descartes the Idea of God is not made by me for I can neither add to nor subtract from it. No more can he add to or take from any other Idea even of his own making. 805

S The not distinguishing twixt Will & Ideas is a Grand Mistake wth Hobbs. He takes those things for nothing wch are not Ideas. 806

807
M. Say you, at this rate all's nothing but Idea meer phantasm. I answer every thing as real as ever. I hope to call a thing Idea makes it not the less real. truly perhaps I should ∧ have stuck to yᵉ word thing and not mention'd the Word Idea were it not for a Reason & I think a good one too wᶜʰ I shall give in yᵉ Second Book.

808
I.S. Idea is yᵉ object ∧ (or Subject) of thought; yᵗ I think on wᵗever it be, I call Idea. thought it self, or Thinking is no Idea tis an act i.e. Volition i.e. as contradistinguish'd to effects, the Will.

809
I.Mo. Locke in B.4.c.5. assigns not yᵉ right cause why Mental Propositions are so difficult. it is not because of Complex but because ∧ (of) abstract Ideas. yᵉ Idea of a Horse is as complex as that of Fortitude. yet in saying yᵉ Horse is White I form a Mental Proposition with ease but wⁿ I say Fortitude is a Vertue I shall find a Mental proposition hardly or not at all to be come at.

S. Pure Intellect I understand not. 810

Locke is in ye right in those things wherein He differs from ye Cartesians & they cannot but allow of his opinions if they stick to their own principles ʌ or cause of Existence & other abstract Ideas. 811

The propertys of all things are in God i.e. there is in
G.S. the Deity Understanding as well as Will. He is no Blind agent & in truth a blind Agent is a Contradiction. 812

I am certain there is a God, tho I do not perceive him
G have no intuition of him. this not difficult if we rightly understand wt is meant by certainty. 813

S It seems that the Soul taken for the Will is immortal, Incorruptible 814

S Qu: whether perception must of necessity precede volition ? 815

Errour is not in the Understanding but in ye Will. wt
S.Mo. I understand or perceive, that I understand there can be no Errour in this. 816

Mo. N. Mem: to take notice of Lockes Woman afraid of a wetting in ye. Introd: to shew there may be reasoning about Ideas or things. 817

M. Say Descartes & Malbranch God hath given us strong inclinations to think our Ideas proceed from Bodies. ~~pray wt mean they~~ or that Bodies do exist. Pray wt mean they by this. Would they have it that the Ideas of imagination are images of & proceed from the Ideas of Sense. this is true but cannot be their meaning for they speak of Ideas of sense themselves as proceeding from being like unto I know not wt. 818

M.S. Cartesius per Ideam Vult omne id quod habet esse objectivum in Intellectu. V. Tract: de Methodo. 819

S Qu: may not there be an Understanding without a Will. 820

S Understanding is in some sort an Action. 821

S Silly of Hobbs etc to speak of ye. Will as if it were Motion wth wch it has no likeness. 822

M. Ideas of Sense are the Real things or Archetypes. 823
Ideas of Imagination, Dreams etc are copies, images
of these.

My Doctrines rightly understood all that Phi- 824
M. losophy of Epicurus, Hobbs, Spinoza etc wch has been
a Declared Enemy of Religion ■ Comes to ye Ground.

G. Hobbs & Spinosa make God Extended. Locke 825
also seems to do the same.

Ens, res, aliquid dicuntur termini transcenden- 826
I.E. tales. Spinosa p.76.prop.40.Eth.part.2.gives an
odd account of their original. also of the original
of all Universals Homo, Canis etc :

Spinosa (vid:Pref.oper:Posthum:) will Have God 827
G. to be Omnium Rerum Causa immanens & to countenance
this produces that of St. Paul, in him we live etc. Now
this of St. Paul may be explain'd by my Doctrine as
well as Spinosa's or Locke's or Hobbs' or Raphson's etc.

The Will is purus actus or rather pure Spirit not 828
S imaginable, not sensible, not intelligible. in no ~~wise the~~
object of ye Understanding, no wise perceivable.

Substance of a Spirit is that it acts, causes, wills, 829
S operates, or if you please (to avoid the quibble ye may
be made on ye word it) to act, cause, will, operate
its' substance is not knowable not being an Idea.

Why may we not conceive it possible for God 830
G. to create things out of Nothing. certainly we (our selves) create in
some wise whenever we imagine.

Ex nihilo nihil fit. this (saith Spinoza 831
G.N op:posth:p 464) & ye like are called veritates aeternae
because nullam fidem habent extra mentem. to make
this axiom have a positive signification, one should ex-
press it thus. Every Idea has a Cause i.e. is produced.
by a Will.

P. The Philosophers Talk (much) of a distinction twixt 832
absolute & relative things, or twixt things consider'd in
their

own nature & the same things considered with respect to us. I know not w^{t} they mean by things consider'd in themselves. This is nonsense, Jargon.

It seems there can be no perception, no Idea with- 833
S out Will, being there are no Ideas so indifferent but one had rather ~~be without them~~ Have them than annihilation, or annihilation than them. or if there be such an equall Ballance there must be an equal mixture of pleasure & pain to there being perfectly Cause it. ∧ No Ideas ∧ void of all pain & uneasiness But w^{t} are preferable to annihilation.

Recipe in animum tuum per cogitationem 834
X vehementem rerum ipsarum non literarum aut sonorum imagines. Hobbs against Wallis.

Tis a perfection we may imagine in superior spirits 835
at once
X that they can see a great deal ∧ with the Utmost Clearness & distinction whereas we can only see a point.

Treating of Matter I had better say the proportion 836
M. & Beauty of Things than their species (wth Locke hath proved already) are the Workmanship of the Mind.

Mem : wn I treat of Mathematiques to en- 837
X quire into ye Controversy twixt Hobbes & Wallis.

Every sensation of mine wch happens in 838
G. Consequence of the general, known Laws of
nature & is from without i.e. independent
of my Will demonstrates the Being
of a God. i.e. of an unextended incorporeal Spi-
rit wch is omniscient, omnipotent etc.

Mo. One great Cause of Miscarriage in Men's 839
affairs is that they too much regard the Present.

I say not with J.S. that we see solids I re- 840
M. ject his Solid Philosophy. Solidity being only
perceived by touch.

It seems to me that Will & understanding 841
S Volitions & ideas cannot be severed, that either
cannot be possibly without the other.

Some Ideas or other I must have so long as I 842
E.S. exist or Will. But no one Idea or sort of Ideas is
essential.

The distinction between Idea & Ideatum I can- 843

M. not otherwise conceive than by making one ʌ the
or consequence
effect ʌ of Dream, rêverie, Imagination the
other of sense & the Constant laws of Nature.

Dico quod Extensio non concipitur in se 844

P. & per se contra quam dicit Spinoza in ep:
1st ad Oldenburgium.

My Definition of ye Word God I think 845

G. Much clearer than that of Descartes & Spinoza
viz. ens summè perfectum, & absolute Infinitum
or ens constans infinitis attributis quorum unum-
quodque est infinitum.

X. Tis chiefly the Connexion betwixt Tangible 846
& Visible Ideas that deceives & not the visi-
ble Ideas themselves.

But the Grand Mistake is that we know 847

S. not wt we mean by we or selves or mind etc.
tis most sure & certain that our Ideas are distinct from
the Mind i.e. the Will, the Spirit.

I must not Mention the Understanding as a faculty 848
S. or part of the Mind, I must include Understanding & Will etc in the word Spirit by wch I mean all that is active. I must not say that the Understanding differs not from the particular Ideas, or the Will from particular Volitions.

S The Spirit, the Mind, is neither a Volition nor 849
an Idea.

I say there are no Causes (properly speaking) but 850
N.S. Spiritual, nothing active but Spirit. Say you, this is only Verbal, tis only annexing a new sort of signification to the word Cause, & why may not others as well retain the old one, & call one Idea the Cause of another wch always follows it. I answer, if you do so, I shall drive you into many absurditys. I say you cannot avoid running into opinions you'll be glad to disown if you stick firmly to that signification of the Word Cause.

Mo. In Valuing Good we reckon too much on ye present 851
& our own.

Mo. There be two sorts of Pleasure the one is ordain'd as a spur 852
or incitement to somewhat else & has a visible relation & subordination thereto, the other is not. Thus the pleasure of eating is of the former sort, of Musick is ye later sort. These may be used for recreation, those not but in order to their End.

Mo. Three sorts of usefull knowlege, that of coexistence 853

N. to be treated of in our ∧ Principles of Natural Philoso-
X phy, that of Relation in Mathematiques, that of definition, or inclusion, or Words (wch perhaps differs not from that of Relation) in Morality.

Will, Understanding, desire, Hatred etc so far 854
S forth as they are acts or active differ not, all their difference consists in their objects, circumstances etc.

N. We must carefully distinguish betwixt 855
two sorts of Causes Physical & Spirituall;

N. Those may more properly be Called occasions 856
but then we must mean Causes yt do nothing.
yet (to comply) we may term them Causes. ∧

S According to Locke we must be in an Eternal 857
uneasyness so long as we live, bating the time of sleep or Trance etc. for He will have even the Continuance of an action to be in his sense an action & so requirs a volition & this an uneasiness.

I must not pretend ~~(at least near the b-~~ 858
I ~~-ginning.~~ to promise much of Demonstration, I must cancell all passages that look like that sort of Pride, that raising of Expectation in my Readers.

I If this be the Case, surely a Man had better not Philo- 859
sophize at all, No more than a Deform'd Person Ought covet to to ʌ be-
hold himself by the Reflex light of a Mirrour.

I. Or thus, like Deformed Persons who having beheld 860
themselves by the reflex light of a Mirrour are dis-
pleas'd with their ▬ Discovery.

M.ʳ What can an Idea be like but another Idea, we 861
can compare it with Nothing else, a Sound like a Sound,
a Colour like a Colour.

M.ʳ Is it not nonsense to say a Smell is like a thing wch cannot 862
be smelt, a Colour is like a thing which cannot be seen.

M.S. Bodies exist without the Mind i.e. are not the Mind, but 863
distinct from it. This I ʌ allow, the Mind being altogether differ-
erent therefrom.

P. Certainly we should not see Motion if there was no diversity of 864
Colours.

P. Motion is an abstract Idea i.e. there is no such Idea that 865
Can be conceived by it self.

I Contradictions cannot be both true. Men are oblig'd to answer 866
Objections drawn from Consequences. Introd.

S. The Will & Volition are words not used by the Vulgar, the 867
Learned are banter'd by their meaning abstract Ideas.

X	Speculative Math: as if a Man was all day making hard knots on purpose to unty them again.	868
X[132]	Tho it might have been otherwise yet it is convenient the same thing *wch* is M.V. should be also M.T. or very near it.	869
S	I must not give the Soul or Mind the Scholastique Name pure act, but rather pure Spirit or active Being.	870
S	I must not say the Will & Understanding are all one but that they are both Abstract Ideas i.e. none at all. they not being even ratione different from the Spirit, Qua faculties, or Active.	871
S	Dangerous to make Idea & thing terms Convertible, that were the Way to prove spirits are Nothing.	872
Mo.X	Qu: whether Veritas stands not for an Abstract Idea.	873
M	Tis plain the Moderns must by their own Principles own there are no Bodies i.e. no sort of Bodies without the Mind i.e. unperceived.	874
S.G.	Qu: whether the Will can be the object of Prescience or any knowlege.	875
P	If there were only one Ball in the World it Could not be moved. there could be no variety of Appearance.	876

X	According to the Doctrine of Infinite Divisibility there must be some smell of a Rose v.g. at an infinite distance from it.	877
M.	Extension tho it exist only in the Mind, yet is no Property of the Mind, The Mind can exist without it tho it cannot without the Mind. But in Book 2 I shall at large shew the difference there is betwixt the Soul & Body or Extended being :	878
S	Tis an absurd Question wch Locke puts whether Man be free to Will :	879
X	Mem. to enquire into the reason of the Rule for Determining Questions in Algebra.	880
X	It has already been observ'd by others that names are no where of more necessary use than in Numbering.	881
M.P.*	I will grant you that extension, Colour etc may be said to be without the Mind in a double respect i.e. as independent of our Will & as distinct from the Mind.	882
MoN X	Certainly it is not impossible but a man may arrive at the knowlege of all real truth as well without as with Signs had he a Memory & imagination most strong & capacious. therefore reasoning & science doth not altogether depend upon Words or Names.	883
N	I think not that things fall out of necessity, the connexion of no two Ideas is necessary. 'tis all the result of freedom i.e tis all Voluntary.	884
M.1.	One simple Idea can be the pattern or resemblance only of another. So far as they differ one cannot resemble the other.	885
M.S.	If a man with his Eyes shut Imagines to Himself the Sun & firmament you will not say he or his Mind is the Sun or Extended. tho Neither sun or firmament be without his Mind.	886
S	Tis strange to find Philosophers doubting & disputing whether they have Ideas of spiritual things or no. Surely tis easy to know. Vid. De Vries de id:In.p.64	887
S	De Vries will have it that we know the Mind [as we do Hunger not by Idea but sense or] † Conscientia So will Malbranch. This is a vain distinction	888

August 28th 1708 ~~wit~~ the Adventure of the . . .

It were to be wish'd that Persons of the greatest birth.
Honour, & fortune would take that care of themselves
by Education, Industry, Literature & a love of vir-
tue to surpass all other Men in knowlege & all
other qualifications necessary for great actions as
far as they do in Quality & Titles : That Princes
out of them might always choose ~~Persons~~ Men fit
for all Employments & high Trusts. Clov.B.7

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EDITOR'S NOTES ON THE ENTRIES

A GENERAL NOTE

THE *Philosophical Commentaries* abounds in entries which are quite clear when explained, but which need explanation, *e.g.* 'Of & thing causes of mistake' (115). My first aim has been to state simply what, in my opinion, each entry means, or to enable the reader to find out for himself by looking up the references given. I have had also in mind the requirements of scholars who are seeking light on disputed points in the Berkeleian philosophy, or who are studying the genesis and development of Berkeley's early thought. For their sakes I have included references to (*a*) other entries in the *Commentaries* which deal with the same topic, (*b*) corresponding passages in Berkeley's publications, especially the *Theory of Vision* and the *Principles*, which were on the stocks along with the *Commentaries*, and (*c*) corresponding passages in the books he is known to have used at the time, especially Locke's *Essay*.

For the most part I have given each entry a separate note, but where consecutive or adjacent entries are obviously connected, I have combined the notes. I have consulted the notes of Johnston and of Hecht, but have written mine *de novo*. The numbers are those assigned in *my* edition of the text.

To avoid repetition where topics recur frequently (*e.g.* abstract ideas, or infinite divisibility), I have as a rule given one comprehensive note on the first occurrence, referring back to it in the subsequent entries. The multitude of references and cross-references could not be avoided; for I have aimed at making my annotations at once adequate and brief.

The subjects of my key doctrinal notes with the numbers of the entries on which they comment are given in the following table:

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NUMBERED NOTES ON THE ENTRIES

1. 2. 'Neither again can it be conceived how eternity has flowed down to the present day; for that distinction which is commonly received of infinity in time past and in time to come can by no means hold; for it would thence follow that one infinity is greater than another. . . .' Bacon, *Nov. Org.* I xlviii. Locke (II xvii 10) refers to eternity *a parte post* and *ante* without comparing them, and in section 20 he argues that man has no positive idea of eternity, because (if he had) 'he could add two infinities together; nay, make one infinitely bigger than another: absurdities too gross to be confuted!'

The purport of Berkeley's two observations is not clear; he would certainly, with Locke, regard as absurd an infinite greater than an infinite (he attacked infinite divisibility on that very ground); but taking eternity as '*onely a train of innumerable ideas*' (*14*), *he seems prepared to admit* that there may be limited eternities, such as the duration (*i.e.* experience) of finite spirits, which has a beginning, if not an end. The clue to the precise meaning of these entries was contained, no doubt, in Berkeley's essay on time, on which see *4n.*

3. For the same question see 92, and *Locke* II xvii 16; the answer, for Berkeley, is in the negative. In his letter to Johnson of 24th March 1730 (*Fraser* II p. 20) he says that the supposition of a succession in Deity is one of the causes of confusion about time.

4. In the same letter he writes, ' One of my earliest inquiries was about time which led me into several paradoxes that I did not think fit or necessary to publish ; particularly the notion that the resurrection follows the next moment to death.' That early inquiry is, no doubt, represented here in these entries on time and eternity. Probably Berkeley wrote an essay on time as part of his first study of immaterialism (see my Introduction, p. xxxvi.), subsequently noting here those problems and features of the subject which required further examination. Time is discussed briefly in *Princ.* 97–8, and is there stated to be ' nothing abstracted from the succession of ideas in our minds ' ; the same teaching is contained in the *CPB.* Time is the succession of ideas in our minds here, 167, 460, 647, 651 ; it cannot exist outside the mind, *i.e.* there is no abstract, absolute time, infinitely divisible, 5, 8, 10, 13, 48, 655 ; time being relative to mind has no gaps, and there are no intervals of mere existence without thought, 127, 390, 590, 651 ; questions are raised about variations in the rate of succession of ideas, 7, 16, 39, 92.

5. In *Princ.* 98 Berkeley closely connects the existence, the duration, and the cogitation of a finite spirit. Locke (II xiv 3) distinguishes duration as the distance between any parts of the succession of our ideas.

6. ' before, between, after,' *i.e.* the train of our ideas, which for Berkeley, as for Locke, measures succession. Berkeley adds ' numbering,' because number, he holds (see 460), requires ' distinct perception,' *i.e.* successive perceptions.

7. Malebranche (I viii) adduces this fact as evidence that we have no exact knowledge of duration or motion ; pain, he says, makes us consider the parts of duration with closer attention ; but mirth and joy carry the soul out of itself.

8. 10. In his next paragraph Malebranche argues for the infinite divisibility of duration. Similarly Locke (II xv 9) says, ' Every part of duration is duration too ; and every part of extension is extension ; both of them capable of addition or division *in infinitum.*' With regard to the concrete succession of ideas which, for him, is time, Berkeley differs from both of them ; for he denies, directly or by implication, the infinite divisibility of time here, and

in 132–3, 488, *Princ.* 98. The 'measure' of time, he holds, leads men to suppose it infinitely divisible; just as the inch representing the mile leads them to suppose space infinitely divisible (see *Princ.* 126–7).

What, then, are we to understand by 'duration infinitely divisible'? I find no such concession in his published works. The phrase must refer to some intermediate position which he held for a time, or was thinking of holding; he may have been prepared to grant infinite divisibility to the abstract 'perseverare in existendo,' just as we find him in 11 and *TV* 54 prepared to allow infinite divisibility to abstract space; *cf. Princ.* 97, 111.

9. This may be a comment on 'this present moment is common to all things that are now in being' (*Locke* II xv 11).

Two questions arise: (*a*) Does 'το νυν' refer to time or to eternity? (*b*) Does 'not common' involve a solipsist view of time?

(*a*) The entry is marked *T*, and therefore must have at least an application to the problem of time; but if Berkeley had been originally thinking of the present moment of time, I do not think he would have troubled to write the Greek term, which had long been technical for the *punctum stans*. Writing to Johnson on 24th March 1730 (*Fraser* II p. 19) Berkeley says, 'By the τὸ νῦν I suppose to be implied that all things, past and to come, are actually present to the mind of God, and that there is in Him no change, variation, or succession.' Moreover the term 'intelligences' was often used technically of celestial beings, as in 723, but it may be used more broadly, as in 663. Perhaps there is an implied *a fortiori* argument; as in heaven intelligences do not all experience the instant of eternity in the same way, so on earth human minds do not all experience the instant of time in the same way.

(*b*) Berkeley says that τὸ νῦν is not common to 'all intelligences'; to assume that he meant *any* when he says *all* is rash. The words, therefore, do not necessarily imply that Berkeley held, even for a time, a solipsist view. 48 (perhaps) and 590 stress the privacy of the *measure* of time; so, too, do the letter to Johnson and *Princ.* 98 ('estimated'); but there can be a private measure of a public continuum. On the other hand, it is important to note that in *Princ.* 98 the words 'is participated by all beings' are used with a clear reference to the Newtonian conception of time, which Berkeley is attacking; but, again, it would be rash to force into those words an implicit

denial of all public time, especially as he has just before mentioned ' such a time ' which is common at least to master and servant.

Berkeley denies abstract and absolute time, and I think we might say that he denies impersonal time ; but he did not publish any full theory of time ; he certainly held that time is the succession of ideas in the mind ; but there is no need to give a subjectivist, much less a solipsist, turn to that phrase ; the ideas have their private and personal aspect ; in so far as they are in my mind, they are mine and not yours, as is the air I breathe. But they have their public aspect too ; they are God's ideas, given by Him to all, forming the course of nature, shared by many, accessible to all, as is the air we breathe.

11. ' in one sense,' Berkeley consistently denies that finite, sensible extension is infinitely divisible, and the limitation here is to be interpreted by his words, ' Whatever may be said of extension in abstract, it is certain sensible extension is not infinitely divisible ' (*TV* 54) ; he was prepared to admit that abstract extension, or the ' extension of matter ' (*CPB* 81) could be in thought infinitely divided.

Infinite divisibility was accepted almost universally in Berkeley's day (Bayle was a notable exception), and he devotes much attention to the problem in the early part of the *CPB*, *viz.* 17, 21, 26, 67, 72, 75, 81, 132–3, 236–7, 247–8, 261, 263, 314, 322–3, 342, 364, 393, 462 (*cf.* 877). He touches on the infinite divisibility of time (see 8*n*) and of magnitude in general (see 132–3), but he is chiefly concerned with that of extension.

From these entries and from the discussion of the problem in *Princ.* 123*ff.* we see that Berkeley objected to infinite divisibility on the following grounds : (1) it gives rise to many geometrical paradoxes, and fosters that extreme subtlety of mathematical reasoning exemplified in the doctrine of fluxions, (2) it entails a depreciation of our faculties, especially of our senses, (3) it encourages false abstraction, (4) it runs directly counter to his New Principle, for when the mathematician takes his doctrine objectively, that is, when he goes beyond the assertion, ' I can go on dividing,' and asserts, ' this is infinitely divisible and consists of an infinite number of parts,' he has to assume the existence of what is not perceived, the ' something we know not what.' In opposition to the infinite divisibility Berkeley advanced his own theory of indivisible, sensible points, or *minima*, on which see 59*n* ; on extension, see 18*n*.

12. *Cf.* 118, which gives the reference to *Locke* II xiv 19, 'The revolutions of the sun and moon the properest measures of time.' Being immediately perceived they immediately measure our train of ideas (see 4*n*), and since our train of ideas, in its turn, measures our duration, the 'revolutions' measure our duration 'mediately,' *i.e.* indirectly.

13. 'onely' is not depreciatory, but is an implicit denial of the Newtonian view (see Berkeley in *Princ.* 110) that there is an absolute time outside the mind, as well as a relative time within the mind; on time, see 4*n*.

14. Locke (II xvii 16) rejects the classical conception of eternity as simultaneity, and resolves it into infinite succession. Berkeley here adopts this suggestion, and tries to explain immortality as an indefinite continuance of the train of ideas.

In *Princ.* 141 (1st ed.) he declares the immortality of the soul 'a necessary consequence' of his doctrine, and the hesitation expressed in this entry does not represent any serious doubt about immortality, but merely reflects the fluidity, at this stage, of his psychological terms. In 814 the immortality of the soul 'taken for the Will' is admitted; but it must be remembered that the identification of 'mind, spirit, soul, or my self' with one another and with the will or active being was worked out very gradually in the *CPB*.

A study of the phases through which the terms *soul* and *mind* pass in the *CPB* is needed for a full understanding of Berkeley's doctrine of existence in the mind.

In this entry the *soul* is unimportant compared with the *person*, which is the bearer of immortality; in 25 the two are almost equated, and the question is asked whether they are completely known; in 44 and 154 attempts are made to define the soul; but perhaps the soul may be known, and yet not defined, 178; in any case it is not to be known by *idea*, 230; in 286 we reach the important transitional position of mind active and mind passive. A big step forward is taken in 478 by the raising of the question, How is the soul distinguished from its ideas? Hitherto soul and ideas have not been distinguished; hence the doubt in our present entry about the soul's immortality. After an interval we reach the striking series of entries, 576–81, where the identity of soul and mind with their contents is roundly asserted; in 622 extension and motion are virtually united to the soul's essence; in 637 the possibility of an unknown

thinking substance of ideas is granted. Another pause for reflection, and the early phase is over ; in 712 the soul is the active thing, the will, and therefore distinct from ideas, which are passive ; 478a, a *verso* addition, is to the same effect ; 788 fixes the terminology, as in the *Principles*, of will, spirit, and soul ; and in 863, 878, and 882 mind is distinguished from body and extension.

15. 16. Reflections on the rate of succession of ideas, probably founded on *Locke* II xiv 6–12, *cf. Princ.* 14 ; on time, see 4*n*.

17. *Cf.* 824. Epicurism, Hobbism, Atheism, and idolatry are traced to materialism in *Princ.* 35, 92–4. The mention of the fall of Adam is curious ; presumably Berkeley means that materialism is the original sin of intellect. Malebranche (I v) traces the error of the senses to the Fall. Idolatry, literal and figurative, is traced to materialism again in 411 ; for materialism is the substitution of 'some blind unthinking deputy' for God (*Princ.* 150), and what the representative idea is to the mind of the thinker, the idol is to the heart of the worshipper. On 'divisibility,' see 11*n* ; on substance, see 80*n*.

18. There are many entries on extension ; Berkeley had to study it closely, because of the popular association of space with matter, and because his argument required him to trace the connection between space and the secondary qualities and to establish the heterogeneity of visual and tactual space.

That extension is not without the mind is asserted also in 33, 37, 121, 249, 270, 290, 342, 801, 878, 882, the last three of these entries making the important provisos that extension is distinct from the mind, is not a property or mode of mind, and is independent of *our* mind ; extension is a sensible quality, and visible extension, in particular, is colour, or the co-existence and continuity of colours, 78, 164–5, 242, 253, 318, 328, 362, 363a, 494, 711 ; it is composed of minimal points, visible and tangible, 78a, 287, 365, 440 ; any other extension is an abstract idea, 111a, 328, 365a, 440, *TV* 122*ff*., *Princ.* 116*ff*. ; extension is not a simple idea, 105, 167 ; pure space is considered in 135, 290, 695, *TV* 126, *Princ.* 117 ; extension and matter are considered together in 37, 40, 269, 288a, 299, 325 ; on infinite divisibility, see 11*n* ; on the hetero-

geneity of visible and tangible extension, see 28*n*. Note that in some entries Berkeley uses *extension* as the equivalent of *magnitude*.

19. 'Those odd paradoxes, that the fire is not hot, nor the wall white' (*Princ.* 99) are mentioned again in 392. Berkeley traces them to 'a twofold abstraction,' *viz.* abstraction of *esse* from *percipi*, and of primary from secondary qualities. His own teaching rests on the reality of the sensible world, and defends the solidarity of primary and secondary qualities and the inseparability of both from perception.

The term 'immaterial hypothesis' (*cf.* 71) on the second page of the *CPB* along with a summary (18–24) of its main tenets and arguments is noteworthy. Berkeley had reached immaterialism and had thought out its consequences some time before he began the *CPB*; *cf.* 'a long and scrupulous inquiry' (*Princ.* Pref.) and 'the opinion of matter I have entertained some years' (letter of 6th September 1710, *Rand*, p. 83). The word 'hypothesis' may imply lack of full conviction—in which case it points to the fact that Berkeley had not yet come on his intuitive New Principle, but was at the stage of his 'first arguings' (see next note and 265).

20. This entry originally had the marginal letter *P*, index of the small group (about 35 in number) dealing with 'Primary and Secondary Qualities.' This was Berkeley's first 'method of arguing' (see previous note), *viz.* 'after the same manner as modern philosophers prove certain sensible qualities to have no existence in Matter, or without the mind, the same thing may be likewise proved of all other sensible qualities whatsoever' (*Princ.* 14). In section 15 he remarks on the insufficiency of this line of proof. The 'modern philosophers' are Locke and the Cartesians, especially Malebranche. Locke's account (II viii 9*ff.*) of the primary and secondary qualities and their ideas is not altogether clear or consistent; he confuses idea and quality, and gives the impression that the secondary qualities are in the mind, but he insists that 'powers' to produce them in us are in the thing. Malebranche gives the name 'sensible qualities' to what Locke calls 'secondary'; Locke virtually places them in the mind; Malebranche goes further and makes them 'modifications' of the mind. Bayle (*Pyrrho* and *Zeno*) says, with Berkeley, that the arguments which apply to the one group of qualities apply also to the other group.

21. For Berkeley, the supposition of length without breadth is absurd, as involving an insensible idea, *i.e.* an idea which is no idea ; he admits that we can consider length and breadth separately, 254, 722, but to suppose that they really exist separately is to be guilty of false abstraction, 365a, 483 ; length without breadth is discussed further in 85, 342, 365 ; on infinite divisibility, see 11*n*.

22. 23. Anticipations of the New Principle, *esse est percipi* ; *nec quid, nec quantum, nec quale*, also in 517, is a description of matter, founded on Aristotle, *Metaphysics*, Bk. VII c. 3, quoted by Collier, *Clavis Universalis*, II 9.

24. A hasty deduction from immaterialism, panpsychist in character. Berkeley's ' second thoughts ' are contained in later entries such as 437, 547, 563, 686a, 863, where, exactly as in the *Principles*, he teaches explicitly the existence of ' other things ' (ideas) which depend on mind, but are not mind, nor modes of mind.

25. For the development of Berkeley's views on the soul, see 14*n* ; the term *person* is freely used in the early part of the *CPB* ; in 713 he records his decision not to make much use of it, owing to its theological associations.

26. On infinite divisibility see 11*n* ; this argument is developed in *Princ.* 47, 123–4 ; Bayle (*Zeno*) has a similar argument.

27. Answered in the negative, *TV* 137. The ' jocose problem ' propounded by Molyneux in his letter to Locke of 2nd March 1693 (*Some Familiar Letters between Mr Locke and Several of his Friends*, p. 37) was inserted by the latter in the second edition of the *Essay* (II ix 8).

The Molyneux Problem supposes a man blind from birth able to distinguish by touch between a cube and a sphere of the same metal, and asks, ' Suppose then the cube and sphere placed on a table, and the blind man to be made to see ; query, Whether by his sight, before he touched them, he could now distinguish and tell which is the globe, which the cube ? ' Berkeley refers to the problem again in 32, 49, 58, 59, 62, 95, 97, 100, 121, 174, 294, 307, 454 ; he reproduces it with comments in *TV* 132, and refers to it in *TV* 41, 79, 137,

Appendix (2nd ed.), *Princ.* 43, *TVV* 45 and *ib.* 71, where he gives a résumé of the Chesselden case (for this and other cases of cure, see *Fraser* II p. 410*ff.*).

Locke and Molyneux answered the query in the negative, Berkeley thought the man would not understand the question at all, Leibniz after a full discussion (*Nouveaux Essais* II ix 8) decided that if the man be informed that the two objects are cube and globe, he will know which is which; but that if he is not so informed, he will not at first connect either object with the cube and globe he has touched.

Locke uses the problem merely to illustrate mental interpretation of the data of sense; Berkeley gives it a much wider application, using it for a variety of purposes, but chiefly to establish by means of it the heterogeneity of visible and tangible ideas; see next note.

28. Locke taught that we see and touch the same thing, or, in his technical language, 'We can receive . . . the ideas of our extension, figure, motion, and rest of bodies, both by seeing and feeling' (II v). Berkeley denied that we see and touch the same thing, and to establish the heterogeneity of visible and tangible ideas was a main aim of his *Theory of Vision* (I, 121–145; *cf. TVV* 41, 'this main part and pillar thereof'). The heterogeneity is much discussed in the early part of the *CPB*, but almost drops out of sight in the latter part; in the *Principles* it appears only in sect. 44, where he deals with the *Theory of Vision*. The heterogeneity was an important *interim* argument, for if the visible idea is to act as sign of the tangible, the two must be two and not one; but once the full doctrine of things as 'collections of ideas' is stated (*Princ.* 1), the question whether the types of constituent ideas are like or unlike, the same or different, loses much of its significance.

In the *CPB* Berkeley is chiefly concerned with extension, visible and tangible, but he does not lose sight of figure and motion; his main argument for the heterogeneity is founded on the results of his analysis of the Molyneux Problem, 32, 49, 58–9, 95, 100, 174; but he attempts other lines of proof, 35, 49, 57, 61, 69–70, 103, 213, 226, 243, 295, 297, 328, 441; he applies the doctrine of heterogeneity to the minimal parts of the ideas, the *minimum visibile* and *tangibile*, 70, 441–2, 710, 869; he brings the other senses into comparison, 138, 241; and he tries to answer the obvious question, If the objects of sight and touch are so different in type, why do they commonly go by the

same name ?—28, 42–3, 54, 91, 114, 240; he says in 101 that the objects of geometry are tangible, not visible; and finally he turns his attention to the nature of the connection between the two types of object, and argues that it might have been otherwise, that it is a customary connection based on experience, and is not a necessary connection, 174, 181, 224–5, 246, 846.

29. The ancient problem of the relation of the diagonal of the square to the side is discussed also in 258, 263–4, 469; in spite of received opinion to the contrary, Berkeley argues that diagonal and side are commensurable in particular squares. Incommensurability, on which turn several of the mathematical problems discussed in the *CPB*, raises the question of the nature of point and line, and therefore of the infinite divisibility. Cheyne (*Philosophical Principles of Natural Religion*, IV 7) calls the incommensurability 'the most perfect and unavoidable proof' of the infinite divisibility. Berkeley denied both doctrines, holding that finite lines consist of finite parts, or *minima*; see *Princ.* 124–5.

30. Newton's doctrine of motion absolute and relative, outlined in his *Principia, Schol. ad def.* viii, is criticized by Berkeley in 316, 451, 455–6, *Princ.* 111–5, and in his letter to Johnson of 24th March 1730 (*Fraser* II p. 19); see also *Mot.* 16–7, 32. For Berkeley there is no motion other than relative. Newton's doctrines of fluxions, colour, and gravitation also are discussed in the *CPB*.

31. Explained by 119, 319, and *Locke* II xvii 14; *cf. TV* 124, 'figure is the termination of magnitude,' and *Anal.* 31. The 'compleat positive ideas' (*prima manu*) refers to Locke's argument (*loc. cit.*) that we have no positive idea of infinity.

32. Because the tangible figures which he knew would not at first, Berkeley held, be suggested by visible figures; for the Molyneux Problem, see *27n.* William Molyneux (1656–98), of Huguenot family settled in Dublin, scientist, philosopher, and politician, friend and correspondent of Locke (see *Some Familiar Letters between Mr Locke and Several of his Friends*), promoter of the Dublin Philosophical Society, translated into English Descartes' *Meditations* (1680) and wrote *Dioptrica Nova* (1692, to which Berkeley's *Theory of Vision*

on its technical side is much indebted), and *The Case of Ireland*, etc. (1698). His son, Samuel, who also rose to eminence, was Berkeley's pupil in Trinity College, and to him the *Miscellanea Mathematica* is dedicated.

33. 34. 35. 36. 37. 37a. Contain in outline most of Berkeley's teaching about space (see 18*n*). Space is not 'incompatible' with thought, *i.e.* the sharp contrast between the two, dear to the Cartesians, is unfounded. Space cannot exist without thought, yet cannot think; it is concrete not abstract, two-dimensional not solid; there is no 'pure space' or vacuum, nor does space exist in matter; 96, 583; *cf. TV* 122–7, *Princ.* 116–7; for the possibility of matter's thinking (34) see *Locke* IV iii 6; for sensations 'perfectly known,' see *Princ.* 87; for the perception of planes and solids, see 106, and *TV* 157–8; on the vacuum, see *TV* 126, *Locke* II xiii 21–3; on thought as active, see 153*n*.

38. The answer to the query must be *No*; for they are heterogeneous (see 28*n* and *TV* 137). In 54 the same question is raised about extension, and at first apparently answered in the affirmative; but subsequently the words 'is proportional to tangible extension, also' were bracketed. Berkeley is on the question, How do visible and tangible come to be called by the same name? See 43 and *TV* 139*ff*.

39. The succession of ideas, for Berkeley, constitutes time, and he was therefore interested in the variations in the rate of succession both in dreams and in waking life. See 4*n*.

40. 'but etc.', *i.e.* but it is not so determined, for *ex hypothesi* matter lies outside the mind, whereas size and figure are determined by the mind; see 65, 325, *Princ.* 11. Other hypothetical arguments against matter are to be found in 67 and 81 (if matter, then the infinite divisibility) and in 68, 269, 836 (if matter, how can beauty, proportion, and the sorts be explained?) and in 131 (if matter, then it affects us not). These arguments are for purposes of exposition, and do not necessarily imply any serious doubt in Berkeley's mind at this time about immaterialism. On extension, see 18*n*.

41. The 'direct & brief demonstration' appears no doubt in *Princ.* 29, a

passage clearly modelled on *Locke*, IV xi 5 with the substitution of God for Locke's 'brisk acting of some objects without me.'

Locke's intricate theory of active and passive powers, according to which secondary qualities 'are nothing in the objects themselves, but powers to produce various sensations in us by their primary qualities' (II viii 10) seems to have been taken over in a spiritualized form by Berkeley, the powers being located in Deity instead of in matter; but he outgrew part of the Lockian doctrine while filling the *CPB*; for in the entries 52, 84, 155, 293, 293a, 298, 433, 461, 493, 621, we see him examining the notion of power, confining it to spirit, and finally equating it with the causal relation, and making God the cause of all ideas of sense.

42. *Cf.* 114. Hecht in his note on the entry says that the German Count is apparently E. W. von Tschirnhaus, whose *Medicina Mentis et Corporis* was published in 1687 at Amsterdam. The story was possibly about the 'complication' of sense data, like those in *Locke* III iv 11, 12, intended to illustrate the heterogeneity of sight and touch.

43. *Cf.* 38*n*; this question, which arises out of Berkeley's doctrine of the heterogeneity of sight and touch (see 28*n*), is formally asked and answered in *TV* 139*ff*. The ultimate answer is that customary connection tends to make sign and thing signified indistinguishable. The asterisk in the margin is probably the + sign erased.

44. As Locke does (III iv 4*ff*), Berkeley at first takes definition seriously; he deals with definition of the soul again in 154, 178, of colour in 153, of extension in 178, 320, of idea in 507, of God in 845, and in general in 162, 562, 853. In his publications he says little about definition as such. On knowledge of the soul, see 14*n*. This scholastic approach to questions of psychology was only a passing phase.

45. Slow down the train of ideas, and apparent motion may become apparent rest. All motion is, therefore, perceived motion, relative to mind, and there is no way of detecting the supposed absolute rest and motion of supposed external bodies; see 30*n*.

46, 47. On likeness; against the representationist view that our ideas are pictures and likenesses of the material thing, and in particular against Locke's principle, 'ideas of primary qualities are resemblances; of secondary, not' (II viii 15). Berkeley discusses the question further in 51, 299, 484, 496, 551, 861–2, 885, *Princ.* 8–9, and sets out his position in formal propositions as part of the 'demonstration' of the New Principle in 378 (props. 13–19).

48. Because time is the succession of ideas, 'Each Person's time being measured to him by his own Ideas,' 590; see 4*n* and 9*n*.

49. Of these three arguments for the heterogeneity of the visible and tangible (see 28*n*) the first, from the relativity of distance and size, is developed in *TV* 61, the second, from his own variety of the Molyneux problem (see 27*n*) in *TV* 110, the third, from the original Molyneux problem, in *TV* 132–3.

50. 51. These are, in effect, the two heads of the argument against matter: (1) matter not being an idea cannot be perceived, (2) matter cannot be *like* what we perceive (see 46*n*), for comparison can only be between ideas.

52. The active Being is God; on the 'powers' theory, see 41*n*.

The problem of the reality of body becomes for the immaterialist the problem of the perceivable. This is one of the most carefully studied problems of the *CPB*, and the discussion of it, continued in 79–80, 84, 98, 185, 185a, 228, 282, 288, 293, 293a, 298, 304, 305, 312, 408, 429, 446, 461, 472, 473, 474, 474a, 477, 477a, 493, 518, 535, 546, 546a, 550, 656, 777, 800, 801, 802, 807, shows that Berkeley's views fluctuated considerably during this period; the fluctuation amounts at times to flat contradiction, and the reader should note the number of *recto* statements, *viz.* 185, 293, 474, 477, 546, corrected on the *verso* (98 is on the *verso* and represents the later view).

The existence of body when not perceived by man is asserted throughout the series; but at first this existence is only the shadowy existence of 'powers in the active Being.' The 'powers' theory, here accepted, is repeatedly criticized in later entries, and is finally shelved (802); while Berkeley held it, the existence of the perceivable was to him 'not actual' (185, 293a), and his assertion of the real existence of unperceived bodies seems to have been

little more than a principle 'to answer objections' (312), to be understood in the conditional mood, *viz.* that *if* I think of them, they exist (472), all things being 'entia rationis' (474). But on the page opposite the last-mentioned entry we meet the astounding correction, 'according to my Doctrine all are not entia rationis' (474a). That is a change of view, not of terms; and on the *verso* of the next page Berkeley draws the vital distinction between matter, on the one hand, and 'bodies & their qualitys,' on the other hand, granting that the latter 'exist independently of Our mind' (477a). He has come to realize that immaterialism is strengthened, not weakened, by the admission of sensible bodies, perceived by God when not perceived by man. That is his position in the latest entries of this series (800–7), where he distinguishes his view from the Cartesian, and asserts that 'the things the effects themselves [*i.e.* not the powers] to really exist even w^{n} not actually perceiv'd but still with relation to perception.' That too is the position of the *Principles*; see sections 45–8, the main discussion of unperceived existence, where after an appearance of hesitation Berkeley decides firmly that annihilation, perpetual creation, and intermittency, do *not* follow from his principles, and warns the reader not to conclude from the *esse est percipi* that objects of sense 'have no existence except only while they are perceived by us'; for the perceivable and identity, see *Dials.* pp. 466*ff*. *Cf.* my 'Berkeley's Doctrine of the Perceivable,' *Hermathena*, No. LX. 1942.

53. 53a. Locke (II ii–vii) taught that simple ideas are the material of all our knowledge; some, *e.g.* colours, enter the mind by one sense only; some, *e.g.* space, figure, rest, motion, by more senses than one; some by reflection only, *viz.* perception, will, and their modes; some, *viz.* pleasure, pain, power, existence, unity, and succession, enter 'by all the ways.' This doctrine is much discussed in the early part of the *CPB* and appears to be accepted; it drops out of sight towards the end, and does not reappear in the *Principles*. Simple ideas are mentioned twice in the *Principles* (13, 98) in connection with abstract ideas; see also Introd. to *Princ.* 22, "to see what ideas are included in any compound idea,' where the *Draft Introduction* (*Fraser* III p. 381) for 'ideas' has 'simple ideas.'

Berkeley analyses almost all Locke's examples of simple ideas: succession here and in 167, 460; extension in 105, 134, 167, 460; magnitude in 133;

power in 134, 461, 493; colour in 134, 151–3, 484, 484a, 551, 562, 662; motion in 167, 450, 460; time in 167, 460; number in 167; existence in 408, 670–1; unity in 545; in several cases he shows that the supposed simple idea was in fact compound; but at the earlier stage he accepted the doctrine as a whole, and he planned to discuss it in a 'preliminary discourse,' 139, 570, and grounded upon it one of his 'demonstrations' of the New Principle (378, 12–15); see also 179, 222, 280, 496, 526, 664, 760, 885.

The *verso comment*, no doubt a later addition, is clearly meant to qualify and correct the *recto*, and it points to Berkeley's doctrine of abstract ideas (see 318*n*), developed while he was filling the *CPB*, as the source of his dissatisfaction with Locke's doctrine of simple ideas; analysis had shown him that the simplest of the simple ideas, which enter 'by all the ways,' existence, unity, and succession (545, 670–1, *cf. Princ.* 13) were not ultimate data, but abstractions from reality.

54. *Cf.* 'The visible square contains in it several distinct parts, whereby to mark the several distinct corresponding parts of a tangible square' (*TV* 142). Berkeley is trying to answer the objection, If visible and tangible are heterogeneous (see 28*n*), why are they commonly taken for the same? For the bracketed words, see 38*n*; on extension, see 18*n*. Fraser and Johnston misread 'encreas'd' as 'encreated.'

55. An argument *ad absurdum* against external extension, because, for Berkeley, what is sensible is *eo ipso* an idea in the mind. The 'or abstractible' is a later addition inserted sarcastically, no doubt, when he came on his doctrine of abstraction, and decided that non-sensible extension is an abstract idea.

56. 'That the principles laid down by mathematicians are true . . . we do not deny' (*Princ.* 118). By 'double sense' may be meant either the two objects, visible and tangible, or the two sorts of truth, theoretical truth, and truth for practice which is only approximate.

57. 57a. An idea such as extension (see 18*n*) whose hedonic tone is low is readily located in matter, because it makes little call on our regard or activity; *cf.* 321, 692, *TV* 59; the mistake about the two senses, sight and touch (see 28*n*)

lends further support to matter, and (an after-thought) so does familiarity—'the constant perception of 'em.'

58. 59. For the blind man of the Molyneux problem, see 27*n*; the man would not recognize distance or extension, Berkeley held, till experience had taught him to associate visible with tangible.

Berkeley's doctrine of minimal points, one of the most prolific topics of the *CPB*, is expounded at some length in *TV* 54, 79–83, but is only mentioned once in the *Principles* (132). He probably intended to deal with it in his projected mathematical work, as part of his treatment of infinitesimals; and he would not wish to over-burden his exposition of immaterialism with controversial issues. His early essay *Of Infinites* (which was probably earlier than the beginning of the *CPB* and certainly earlier than its end) shows that his rejection of real qualities infinitely small had been thoroughly thought out.

Berkeley asserted the indivisible minimal point because he denied infinite divisibility; both the assertion and the denial are integral parts of his philosophy, fully stated. He does not deny matter on the ground that all is mind, but on the ground that the object of sense is sensible and composed of sensibles. If by going on dividing a given quantity, we could reach an insensible, the *esse est percipi* is violated, and matter cannot be refuted. Accordingly Berkeley teaches that every sensible line is composed of a finite number of indivisible points, which differ from material atoms in that the points are possible objects of sense. The visible point he calls the *minimum visibile*, the tangible point the *minimum tangibile*, or when naming them together, the *minimum sensibile* (abbrev. *m.v.*, *m.t.*, and *m.s.*). Historically the doctrine was related to Cavalieri's mathematical theory of indivisibles (see 346*n*); it has something in common with the *quantum* theory, and with the psychologists' theory of the least perceptible difference; it conflicts seriously, however, with the traditional geometry.

The *minimum*, for Berkeley, is a concrete, objective reality; the *m.v.* is measurable, and in entries 175, 296 it is clearly connected with Locke's sensible point (II xv 9) 'which is ordinarily about a minute, and to the sharpest eyes seldom less than thirty seconds, of a circle whereof the eye is the centre.'

Minima are defined as the 'simplest, constituent parts or elements' of visible and tangible extension, 70; their connection with extension is discussed in

78a, 88, 132, 273, 287, 295, 325, 365, 440–1, 445, 470, 516, 520, 530, 558; they measure magnitude, 256, 258, 469, 475, and are indivisible, 343, 346, 438–9, 462–4, 510; the *m.v.* is determined by the visual angle, 218, 296; it is 'fixed,' *i.e.* constant, 65, 66, 116, 169, 272, 277; *m.v.* and *m.t.* are compared, 710, 869; they are contrasted with mathematical points, 253, 344–5; they are difficult to imagine, 321. Berkeley raises several curious questions about them, showing himself convinced of their existence, but not clear about their nature. Are they extended (273)? Are they coloured (442, 489)? Could sight be enlarged by diminishing the point (175, 219)? Can superior spirits see more points (749, 835)? Can the points be compared with regard to evanescence (480)? Finally we must ask Berkeley whether his *minima* be the same as his 'homogeneous particles' with which he was to solve objections from the Creation (60, 293).

60. 64. On 'homoeomeries' written *prima manu* in both these entries, see Bacon, *Nov. Org.* I 63, and *Bayle, Anaxagoras.* Homogeneous particles are connected with the difficulty about Creation also in 293. This difficulty is discussed in the long account of creation in the *Three Dialogues*, pp. 470*ff.*, and in Berkeley's letter of 6th Sept. 1710 (*Rand.* pp. 83–4), and is mentioned below in 436, 723; for the Creation, see also 339, 830, 831; on *minima*, see previous note.

61. Probably this entry does not in the main represent Berkeley's own views, see 55, 67, 72; he is trying to see how his doctrine of the heterogeneity of sight and touch (see 28*n*) would combine with the hypothesis of matter. Several entries on these pages revert to that hypothesis for argument's sake, *viz.* 64, 65, 67, 68, 74, and are used in the *Principles* (*e.g.* sect. 47) for answering objections. On extension, see 18*n*.

62. 'a Blind at 1st,' *i.e.* a blind man on first receiving sight (see 27*n*). 'In a point,' *i.e.* not distant; 'distance being a line directed endwise to the eye, it projects only one point in the fund of the eye,' *TV* 2; *cf. TV* 41, *CPB* 97, 835.

63. Glasses, *i.e.* the lenses used in microscope, telescope, and spectacles, usually opposed to the speculum or mirror. Molyneux's *Dioptrics* aims at showing 'the properties of glasses.'

Dioptrics furnished Berkeley with three problems: (1) the 'Barrovian case' (*TV* 29–33) which led Tacquet to demolish the principles of his own *Catoptrics*, and led Barrow to desiderate a fuller knowledge of 'the manner of vision,' and which Berkeley claims to have solved by his theory, (2) the Molyneux conjecture about the *locus apparens* of the object, discussed in *TV* 40, and dismissed, (3) the magnifying power of the microscope, discussed in *TV* 85–6. Other entries on glasses (mostly concerned with magnification) are; 94, 148, 182–3, 186–91, 197–9, 229, 232, 236–7, 249, 278, 324, 360, 366.

The invention of glasses drew attention to the relativity of visible magnitude, and so helped to refute the opinion of bodies outside the mind. On the other hand, the invention had also had the opposite effect, as Berkeley points out in 236–7 (*cf.* 94, 603), by making men assign the wrong cause of magnification and accept the infinite divisibility. Thus by showing the variability of sensible things glasses had promoted immaterialism, but by revealing the presence of unsuspected particles they had told against it.

65. 66. It is commonly supposed that matter is fixed while sense data vary. Berkeley here argues that the opposite is the case. The *minimum visibile* is fixed: take an *m.v.*, and let there be in supposed relation to it a particle of material extension; then this particle will vary in size and shape as it approaches or recedes from the observer; but there will be no corresponding variation in the *m.v.* Therefore the supposition of material extension is absurd.

Berkeley goes on to query the nerve of this argument. Is the *m.v.* fixed? He discusses the question in 116, 258, 272, 277, and gives the affirmative answer. 'The *minimum visibile* is exactly equal in all beings whatsoever that are endowed with the visive faculty. . . . Of these visible points we see at all times an equal number.' (*TV* 80–3.)

67. Similarly in *Princ.* 47 in answer to the Fourth Objection Berkeley writes, 'It follows there is an infinite number of parts in each particle of matter. . . .' On infinite divisibility, see 11*n*. In this entry and the next he is arguing 'upon the principles of others,' see 40*n*.

68. 'beauty & proportion' (see 269, 836; *Princ.* 109, 146; *Maleb.* I vi) imply the work of mind. Therefore matter, even if its existence be granted for the sake of argument, is not a sufficient explanation of the world.

69. 70. There is no proportion (in all cases, at any rate) or common measure between the visible and the tangible. Does that prove them heterogeneous (see 28*n*) ? Berkeley is in some doubt about the answer. In 38 the question is raised with regard to motion ; in 54 it is raised with regard to extension (see 18*n*), and is at first decided in the affirmative, but subsequently the decisive words were bracketed. In 70 Berkeley answers in the negative. In *TV* 131 he accepts the absence of proportion as a good line of proof. On the *punctum*, see 59*n*.

71. Locke (II xxiii 23*ff*.) discusses the pressure of air and ether, and decides that neither is the adequate cause of cohesion. For Berkeley ' the dispute ceases ' because cohesion, like other physical facts, ' depends entirely on the will of the Governing Spirit, who causes certain bodies to cleave together . . . ' (*Princ.* 106, *cf. Maleb.* VI ii 9).

72. ' Our idea we call extension,' *i.e.* actually apprehended extension ; note the correction of ' of ' to ' we call ' (see 115*n*). Both the infinitely small particle and the infinitely great expanse involve, for Berkeley, the absurdity of unperceived existence. For the infinitely great and small, see *Locke* II xvii 4, 12 ; on infinite divisibility, see 11*n*.

73. Another reason against infinitely great extension (see previous note). This is the first mention of the optical angle, for which see also 150, 174, 182, 191, 195–8, 205–6, 218, 229, 233, 443, 603. That lines and angles are not the means whereby we judge distance, magnitude, and situation is taught in opposition to the geometrical opticians in *TV passim*. Berkeley asserts that such lines and angles are not perceived by sense, do not exist in nature, and that if they did exist and could be perceived, they would not explain the phenomena of vision proper, as distinct from the behaviour of rays of light and optical instruments ; but he concedes a certain value to the conception of them, and occasionally, as here, he makes use of the conception ; see *TV* 38, 78.

In the *TV*, though not clearly in the *CPB*, he distinguishes two types of optical angle, the angle of binocular vision, and that of monocular. For the former we must imagine a triangle whose base is the distance between the two eyes, and whose sides are the optical axes which concur at the object making ' the lateral angles ' and ' the angle of the optic axes ' (*TV* 19) ; if

the latter was obtuse, it was considered a sign of near distance, if acute, of far distance. Of it Malebranche (I ix) writes, 'The first, the most universal, and sometimes the safest way we have, whereby to judge of the distance of objects, is the angle made by the rays of our eyes, whereof the object is the vertical point.' For this angle Berkeley would substitute 'the disposition of the eyes.' For the angle of monocular vision we must suppose a triangle whose base is 'the breadth of the pupil' (*TV* 21), the sides being formed by the diverging rays coming from the object to the pupil, the nearer object sending the more diverging rays. For the angle of monocular vision Berkeley would substitute 'confused appearance.' Both types are dealt with in *Mol.* pp. 113–4.

74. In close agreement with the argument of *Princ.* 18; *cf.* 359; for ideas and impressions on the brain, see *Locke* II viii 12 and *Dials.* pp. 421–2.

75. Berkeley here distinguishes between abstract unity, to which the notion of division does not apply, and the concrete unit, or one thing, which, on his theory, is divisible but not infinitely divisible, being composed of indivisible points. According to Locke unity is the most simple of our ideas, and is suggested to the mind 'by all the ways' (II vii 7 and xvi 1). Berkeley denies that unity is a simple idea; it is no idea, but a mere word, 545, 714, 746; mathematicians mistakenly suppose it to be infinitely divisible, 342; it is really an abstract idea, *Princ.* 13, 120. *Cf. TV* 109; on infinite divisibility, see 11*n*.

Isaac Barrow (1630–1677) was first Lucasian Professor of Mathematics at Cambridge. His works include *Lectiones Opticae et Geometricae* (1669) and *Lectiones Mathematicae* (1664–66). He is often mentioned in the *CPB*, *viz.* 170, 263, 334, 362, 384, 462, 501, 510 (in 564 other editors read 'Barrow'; but 'Bacon' is the true reading), and Berkeley seems to have read his works with care.

Berkeley was interested in (1) the 'Barrovian case,' *Lect. Opt.* XVIII 13, stated as a problem in *Mol.* I prop. 31. 9, and discussed in *TV* 29–40, (2) Barrow's account of the abstract point as virtually 'nothing'; *e.g.* 'A geometrical point is much better compared to a cypher, or arithmetical Nothing' (*Math. Lect.* III 6), (3) Barrow's arguments against indivisibles; his chapter *Of the Divisibility of Magnitude* (*Math. Lect.* IX) marshals most of those

arguments against indivisibles and for the infinite divisibility which are discussed in the *CPB*.

76. These are Locke's words, quoted again in 534, and referred to in *TV* 48 as one of the reasons why we think we see and touch the same thing. On primary qualities, see 20*n*.

77. For ' large numbers ' *cf.* 217, *Locke* II xvi 6, *Maleb.* VI i 5. On number, see 104*n*.

78. 78a. Both parts of 78 give Locke's views ; for the second part, see *Locke* II iv 5, ' the extension of body being nothing but the cohesion or continuity of solid, separable, movable parts ; and the extension of space, the continuity of unsolid, inseparable, and immovable parts.' Berkeley does not endorse this view, and on the *verso* he tentatively advances his own view in terms of visible and tangible points, on which see 59*n*.

Solidity is discussed also in 105–6, 108, 114, 215, 533, 840 ; it is expressly equated with the third dimension or depth (105–6), and the point of all these entries is that solidity is a tangible, not a visible, quality. Hence the appositeness of Locke's illustration ; the flint must be placed between his hands, not in front of his eyes. Solidity was distinctive of Locke's list of primary qualities, and in the form of resistance or impenetrability it still figures in the popular conception of material substance. Berkeley in his books follows for the most part the Cartesian formula, ' extension, figure, motion,' but he does not ignore solidity. In *TV* 45, 135 he argues that solidity is perceived by touch and not by sight ; *ib.* 154*ff.* he has a passage on mathematical solids ; in *Princ.* 116 he deals with tactual resistance ; solidity is equated with impenetrability in the account of Locke's doctrine (*ibid.* sect. 9) ; it is accepted as a real, sensible quality (sect. 37) ; and in section 11 (*cf.* sect. 67) the argument is advanced that solidity cannot be conceived without extension, and therefore cannot exist in an unthinking substance.

79. 80. Michel-Angelo Fardella (1650–1718) of Sicily, a Franciscan, physicist and philosopher, wrote *Universae Philosophiae Systema* (1691), *Universae Usualis Mathematicae Theoria* (1691), *Animae Humanae Natura* (1698). Bayle (*Zeno*) says that Fardella in his *Logic* asserts the same doctrine as Malebranche, *viz.*

that the existence of the external world is known by revelation, and not by reason.

Berkeley himself says (686a) that Malebranche seems to doubt of the existence of bodies; he himself is quite sure of their existence, and he repeatedly declares that his Principle is the reverse of scepticism, because scepticism takes things to be distinct from ideas, while he identifies ideas of sense with things; see 304, 411, 491, 563, 606, 863, *Princ.* Title, Pref., and sects. 40, 87–9, etc. His assertion of body perceived by sense is as much a part of his philosophy as his denial of matter.

Note the correction of 'without us' to 'certainly'; Berkeley does not allow that body is external to mind, as matter is said to be; but towards the close of the *CPB* (*e.g.* 882) and in *Princ.* 90 he admits externality in the senses there specified. The reference to Locke appears to couple him with the sceptics in respect of his 'sensitive knowledge' (Book IV ii 14). On 'combinations of powers' see 41*n*; on the reality of body, see 52*n*; on certainty and demonstration, see 163*n*.

The 'unknown substratum' is spiritual substance. The *CPB* entries on substance are mostly concerned with Locke's doctrine, or they spring from it. Locke (I iv 18) says that we have no idea of substance 'but only an uncertain supposition of we know not what . . . which we take to be the *substratum* or support of those ideas we do know.' Locke also says (II xxiii 30) 'the substance of spirit is unknown to us; and so is the substance of body equally unknown to us.' Berkeley has these passages in view in 700–1; in 89 he mentions the well-known passage about the elephant and the tortoise; and in 179 he instances from *Locke* II xxvi 1 the looser use of the term *substance* for 'a collection of simple ideas,' *i.e.* sensible qualities.

Berkeley maintains substance in this loose sense in 512, 517, 700, 724; with regard to substance 'in the philosophic sense' his course is not so clear; he rejects material substance, and maintains that there can be no extension without a thinking substance, 17, 270, 288a, 597, 622 (see also 413, 785); but he has great difficulty with thinking substance, and he is uncertain whether spirit is known, or is, as here, 'an unknown substratum,' see 194, 194a, 637, 672. In the *Principles* he speaks clearly on material substance, sects. 19, 37, etc.; on spiritual substance he is less clear, sects. 27, 36; broadly his position is that there are spiritual substances, and they may be known, but not as ideas are known.

81. Berkeley teaches that from the nature of the case there can be no likeness between a known idea and an unknown somewhat, see 46*n*; here he adds the infinite divisibility (see 11*n*) as a further point of contrast. This is an *ad hominem* argument reappearing in *Princ.* 47. Berkeley does not seriously entertain the hypothesis of matter.

82. A material cube should, by definition, have its edges without breadth, but an acute sense (*cf. Princ.* 47 and *Locke* II xxiii 12–13) would see their breadth.

83. This entry has been taken to be Berkeley's own opinion, paradoxically expressed, a corollary of the *esse est percipere*, asserting the intermittent existence of the subject to match that of the object. If he ever seriously held that view, he did not hold it for long; and in view of 590, 'No broken Intervals of Death or Annihilation,' and of his refusal (*Princ.* 48) to adopt the doctrines of annihilation and intermittency in regard to the object, we should interpret the entry, I think, as either (1) an objection noted down for discussion, or, preferably, as (2) a *reductio ad absurdum* of the infinite divisibility of time, a doctrine which 'lays one under an absolute necessity of thinking, either that he passes away innumerable ages without a thought, or else that he is annihilated every moment of his life' (*Princ.* 98, *cf. Siris.* 312).

84. To be taken closely with 282 (reading *dei* for Fraser's *rei*); Berkeley is not here considering finite spirits, but is asking whether the divine cause of the perceivable should be viewed as one or many; for the 'powers' theory, see notes on 41 and 52.

85. For Berkeley length without breadth is an abstraction, supporting the notion of infinite divisibility (see 11*n* and 21*n*), of which one of the stock proofs was the intersection of lines in a point.

The inseparability of colour and extension, urged also in 111, 121, 242, 253, 318, 362, 494, is used as an argument against matter in *TV* 43, *Princ.* 99, and against abstract ideas in *Princ.* Introd. 7.

'Every position,' *i.e.* of the observer; *cf.* 87, 120.

86. This query should be answered in the negative when kept in terms of

idea, as in 557; but if expressed in terms of points, as in 558, it should be answered in the affirmative; see notes on 445–6.

87. 88. Locke (II xiii 4) says that men 'settle in their minds the ideas of certain stated lengths, such as are an inch . . .' Berkeley refers to this passage in the *disputatio* (see p. 473), and says 'Inches etc not settl'd stated lengths . . .'; but in *TV* 61 he writes, 'Inches, feet, etc. are settled stated lengths,' solving the apparent contradiction, as in 297, by showing that the visible inches, etc. vary with distance, while the determinate measures are tangible. For the *minimum*, see notes on 59 and 65.

89. Locke here speaks of 'the poor Indian philosopher,' who would support the earth on an elephant, and the elephant on a tortoise. For substance, see 80*n*.

90. He may have in mind Locke's 'empty, pure space' (II xvii 4) or Newton's 'absolute space' (*Princ.* 116), or the divine, eternal space of Raphson and others; see 298, 825. The 'absurditys' (sketched in *Princ.* 117) cease because the concept in question disappears.

91. Arguing, as in *TV* 62, that the connection between visible and tangible is a matter of custom, not of necessity (see 28*n*); for if our sight were made more acute, our touch remaining as at present, the customary connection would not hold. For the supposition of microscopical eyes, see 97, 116, *TV* 85–6, *Locke* II xxiii 12, *Maleb.* I vi; on extension, see 18*n*.

92. Based on Psalm XC 4 and 2 Peter III 8. Berkeley rejects the notion of a succession of ideas in Deity, see 3*n* and 4*n*, *cf. Maleb.* I viii, 'God could so apply our mind to the parts of its duration, by giving us abundance of sensations in a very little time, as to make one hour appear as long as many ages.'

93. If there is but one colour only, then what we call different colours are degrees or shades of it; see 526 and *Locke* II xviii 4.

94. 'writers of Dioptricks,' *e.g.* Descartes and Molyneux.

Magnification was used as an argument for infinite divisibility (see 236–7, 324) and was therefore of interest to Berkeley in that connection; but he was

chiefly concerned with it in connection with his theory of vision; other writers, he held, made two mistakes; they assume that the object under the microscope is the same as the object under the naked eye (236, 249), whereas 'a microscope brings us, as it were, into a new world' where the accustomed connection between visible and tangible does not hold, *TV* 85–6; further they assume wrongly that the glass alters the appearance merely by altering the visual angle; in consequence they neglect the 'confusion' and the alteration of the apparent distance, see 182–3, 189–91, 197–9, 210, 229, 232, 271. The explanation by the visual angle is probably the 'grand mistake' in view here—see 197 which mentions p. 182 of Molyneux's book (*Dioptrica Nova*), where magnification is explained by the optical angle.

95. For the same argument, see *TV* 41, 79; on the Molyneux problem, see 27*n*.

96. Space without body is, for Berkeley, space without parts and distance between parts, and therefore self-contradictory, an abstract idea, '*pura privatio aut negatio, hoc est, merum nihil*,' *Mot.* 53; *cf.* 583, *TV* 126.

97. On the Molyneux problem, see 27*n*. Berkeley proposes to prove along two lines that the man would not see outness, but would see everything 'in a point' (*cf.* 62*n*). First, as argued in *TV* 85–6 (see also *CPB* 91, 116), suppose macroscopic objects became microscopic, and that our eyes were 'turned into the nature of microscopes,' the ordinary connection between visible and tangible ceases, and their heterogeneity is demonstrated. Second, the radius of the visual sphere is 'nothing at all to the sight' (169), and therefore, Berkeley holds, the man would see everything in the flat, right up against his eye.

This is the first mention of the visual sphere, which we meet again in 122, 169, 214 (probably), 219, 256, 296, 475, 749. The Latin *sphaera visualis* (abbrev. *S.V.*) is used in 256; apparently it is the same as the 'visual orb' of 204–5. The mention of the '30″' (296) clearly connects it with Locke's 'sensible point' (II xv 9); *cf.* Reid, *Inquiry* VI ix, on the geometry of visibles. The *Theory of Vision* contains no mention of the visual sphere, although several of the entries about it have left their mark there (*cf.* 169 with *TV* 79). On the 'spherae of the Retina' see 214*n*.

I have not met the term 'visual sphere' used technically, in Barrow,

Newton, or any other writer on optics consulted by Berkeley; but the term must mean either (1) the actual field of immediate vision, 'those things that we take in at one prospect' (*TV* 83), or (2) the actual and the possible fields of vision from one point, *i.e.* what I do see from a given position, *plus* what I might see, if the eye were to make a complete revolution in every direction.

The visual sphere is stated to be a measure of intrinsic magnitude, 204–5, 256; its size is unaltered whether my vision be bounded by my hand or by the blue sky (169); its radius, *i.e.* the supposed distance of the object from the eye, is *nil* (97, 169) because vision in depth is, Berkeley holds, acquired, not original.

98. 99. I am inclined to think that there is no substantial connection of thought between the entries, that 98 is not a comment on 99, and that it is purely by accident that they face one another on *verso* and *recto* pages.

98 is on the problem of the unperceived perceivable, see 52*n*, 429, 472, and *Princ.* 3, 23, 45–8. Berkeley is considering and answering the objection that on his system 'the objects of sense exist only when they are perceived.'

99 turns on the distinction between motion and velocity formulated in 129–130. If, as he held, the speed of a moving body varies with the speed of the observer's train of ideas, a body impelled by the same force might have different velocities at the same time in relation to different observers. I might see it as fast; you might see it as slow; therefore it would *be* both fast and slow. Here Berkeley is content to deny the inference without giving his reasons. In the *De Motu* (*e.g.* 11, 17; *cf. Alc.* VII *6ff.*) he argues that force, gravity, and similar terms do not denote so many distinct qualities, nor help us to understand the nature of motion. When therefore he allows the conception of physical force, he is arguing 'upon the principles of others.' His strict doctrine is that there are no physical forces, spirits being the only active beings. Hence in dealing with the difficulty propounded in this entry, Berkeley could have cut the knot, had he wished to do so, by declaring that the 'same force' supposed to impel the body with varying velocities is an abstract idea, and therefore, nothing at all. On swift and slow, see *Dials.* pp. 400–1.

100. 'blind,' *i.e.* the blind man of the Molyneux problem, on which see 27*n*; for the 'powers' theory, see 41*n*; on the heterogeneity of sight and touch, see 28*n*; on extension, see 18*n*.

101. In 443 Berkeley suggests that a particular sort of visible extension (*cf.* 400) may be the object of geometry; in *TV* 149–52, 160, he decides that visible extension and figures and abstract extension are *not* the object of geometry, suggesting, but not saying, that tangible extension is the object. In *Princ.* 123 he says that extension 'considered as relative' is the object of geometry. The question arises from the problem of heterogeneity, on which, see 28*n*; on extension, see 18*n*. For 'motion' perhaps read 'motions.'

102. The *CPB* contains 10 entries (with the distinctive marginal sign X3a) of which this is the first, dealing with the problem of the inverted retinal image, which Berkeley later called 'the principal point in the whole optic theory' (*TVV* 52). This entry and 126 call attention to the problem; 148 and 278 deal with the experiment of inverted glasses, *cf.* Stratton's experiment (Stout, *Manual of Psychology*, 4th ed., pp. 480–81); 224, 225, 226, 227, 246, 307 discuss the heterogeneity of visible and tangible with special reference to the arguments about erect and inverted contained in *TV* 88–119. Reid, *Inquiry* VI xi has an account of this problem and of Berkeley's solution. The problem monopolizes the third main section of the *Theory of Vision*, that on Situation. Berkeley argues that the situation of objects is determined with respect to objects of the same sense only, and that the retinal images are not pictures of external objects.

103. *I.e.* apparent magnitude is not decided by visual appearance alone; so *TV* 60—an argument for the heterogeneity of visible and tangible, see 28*n*.

104. Locke (II viii 9) regards number both as a primary quality of body and as the simple idea produced by that quality. Thus he places both the numerical quality and the source of the corresponding idea 'without the mind.' On number as the work of the mind, see also 110, 325, 759–66, *TV* 109–10, *Princ.* 12; other problems of number are discussed in 77, 123, 460, 648, 881.

105. 106. 108. A group dealing with the three dimensions of space in relation to the senses by which they are apprehended. Here, as in the *Theory of Vision*, Berkeley teaches that the direct object of vision has two dimensions only, and that of touch three dimensions; the statement that one dimension, length, is perceivable by hearing does not occur elsewhere; it must refer to the direct

apprehension of long and short sounds, not to the indirect perception of distance by the ear as in *TV* 46. On extension, see 18*n* ; on simple ideas, see 53*n* and 167 ; on solidity, see 78*n*. In 106 ' nor ' is, no doubt, a *lapsus calami* for ' not.' Fraser mistakenly reads ' now,' giving the forced explanation, ' by the adult.'

107. 109. On God (note the marginal letter G) ; ' these,' *i.e.* stones or trees, which being purely passive do not experience the misery of ' unperformed wills '—a phrase explained by Malebranche's words (VI ii 3), ' 'Tis the Author of our being that performs our desires . . . all the second causes, or divinities of the philosophers, are but unactive matter, and ineffective wills.' Berkeley and Malebranche were agreed on the impotence of nature, and, in general, on man's absolute, entire, and immediate dependence upon God ; see *Princ.* 29, 146*ff.* ; on the human will, see 131*n*.

There is little or no systematic discussion of Deity in the *CPB* ; the danger of making God extended is mentioned in 290, 298, 310, 391, 825 ; He is a being who thinks and wills, 109, 610, 712–3, 812 ; He is the sole cause in nature, 433, 485, transcendent, 640–1, immanent, 827 ; we have no *idea* of Him, 782 (*cf.* 177) ; yet His existence is proved and His nature defined, 838, 845 ; see also 508, 675, 705, 813, 830, 831.

' subsist ' ; unthinking things, for Berkeley, exist, but do not subsist ; *i.e.* they are not substances ; they are entirely dependent and cannot act.

110. On number, see 104*n*.

111. 111a. Every colour being a coloured extent (see 85*n*), has not extension as good a right as colour to be regarded as an immediate idea (a sense-datum) ? The *verso* comment in effect rules out the question by making extension an abstract idea ; 53 has a similar *verso* addition, where see note ; on extension, see 18*n*.

112. 113. This paragraph (*Locke* II viii 8, also referred to in 326) contains the gist of Locke's doctrine of idea, quality, and power ; Berkeley was particularly concerned with Locke's statement that he sometimes speaks of the ideas ' as in the things themselves,' which gives verbal support at least for his own account of things as ' collections of ideas ' ; for his transference of the powers from body to the spirit, see notes on 41 and 52.

114. Berkeley is arguing that solidity, *i.e.* depth (see 78*n*), is an object of touch and not of sight; on the German Count, see 42*n*.

115. This cryptic entry is fully explained by 581, 657, 657a, 658, 660. *Of* and *thing* are causes of mistake in so far as they voice and support the representationist theory of perception; for if we take the sense-datum as an idea *of* a thing, *i.e.* as a likeness of something not given to sense, the supposition of matter becomes inevitable. Berkeley's ideas of sense *are* the things of sense, and, strictly speaking, the only 'ideas of' that he recognizes are the ideas formed by the imagination. The term *idea of* occurs a few times in the *Principles*, but all the cases can be explained; 'ideas of light and colours' (sect. 1) is a quotation from Locke, see *TV* 130; there are cases of adjectival genitive, *e.g.* 'ideas of sight'; in sections 10, 67, 84, 116, 138 the term occurs in objections or denials; in the remaining instances, *i.e.* 98, 112, 119, 140, 153 *idea* refers to ideas of the imagination or to abstract ideas, not to ideas of sense.

116. On the visible point, see 59*n*; on microscopical eyes, see note on 91 and 97.

117. Berkeley is thinking of the axioms which assume infinite divisibility, and the propositions supposed to prove it, *cf.* 261, *Princ.* 125. He is in marked opposition to the geometry of his day—see 247–8, 261, 276, 320, 384, 428, 509.

118. Locke answers, No; there is no necessary connection between time and motion, and if the sun were lighted up periodically, instead of moving, the purposes of measurement would be served as well as at present. Berkeley deals broadly with the mutual relations of time, space, and motion in *Princ.* 110*ff.*, but he does not deal with the particular topic of this entry, except in *CPB* 12, where he says that the celestial revolutions measure both time and duration, the former immediately, the latter mediately.

119. For 'these' perhaps read 'those'; *cf.* notes on 31 and 319. A line is the termination of a surface, and a point is the termination of a line. These might be called 'relative' conceptions because they explain the surface and the line in terms of something else. Euclid's conceptions are different: a line

has length without breadth ; a point has position without magnitude. These are ' conceiv'd absolutely.' Both conceptions alike, for Berkeley, are mathematical ' nothings ' and abstract ideas, and to both he opposes his sensible lines and points.

120. Repeated from 85, where see note.

121. ' Blind at 1st ' ; *i.e.* the blind man of the Molyneux problem on first recovering his sight (see 27*n*) ; on extension, see 18*n* ; on extension and colour, see 85*n*.

122. Such circles are equal, Berkeley holds, because they all contain an equal number of visible points ; see 150*n* and *TV* 79. He is considering the ' field of vision ' as spherical (see 97*n*) ; all such fields are fixed, he holds, and do not vary in size with varying distance : whether I am looking on the palm of my hand or the open firmament, I see the same number of visible points. This is part of the proof that magnitude is judged, not seen.

This entry illustrates the value for us of the marginal signs. Concentric circles are mentioned again in 315, and one would naturally think that they are on the same topic ; but it is not so. In this entry Berkeley is on a problem of vision, visible magnitude ; hence he uses the sign $^{2}X^{1}$, which is proper for the entries dealing with the second division of the *Theory of Vision*. In 315 the concentric circles have nothing at all to do with vision ; there, as explained in my note, Berkeley is considering the argument for matter based on the supposed infinite divisibility of space ; hence the marginal sign XM.

123. Locke (II xvii 8) says that the idea of the infinity of number is very clear, but that the actual idea of an infinite number is absurd ; for when we frame the idea of any given number, ' the mind rests and terminates in that idea ; which is contrary to the idea of infinity.' Leibniz (*Nouveaux Essais* II xvii 8, quoted by Hecht), commenting on this passage, is not satisfied with Locke's reason, and says that the true reason why we cannot have an idea of an infinite number is that the infinite cannot be a true whole. Berkeley does not tell us what he thought wrong in Locke's solution, and in his *Of Infinites* he gives high praise to this passage of the *Essay*. In general he objected to Locke's theory of number, as involving existence outside the mind ; see 104*n*.

124. The marginal sign connects this entry with the later portion of the *Theory of Vision*, and no doubt the question refers to the opinion that 'flat or plane figures are immediate objects of sight' (*TV* 157). Berkeley refutes this opinion, holding that flatness, like distance and magnitude, is not an immediate object of sight. Presumably he would hold the same view of the rightness (*i.e.* straightness) of a line.

125. Abbreviated duplicates of this entry and 126 occur together in 171 and 172. The horizontal moon and the inverted retinal image were, respectively (as indicated by the marginal signs here), the test problems of the second (magnitude) and the third (situation) divisions of the *Theory of Vision*.

Why does the moon on the horizon look larger than in the zenith? Descartes, Gassendi, Hobbes, Wallis, and Molyneux had each tried to explain the phenomenon; Berkeley refers to their attempts in his own discussion of the the problem in *TV* 67–78. He mentions the problem again in 140, 233, 302 (*cf.* 244), and sets forth his own explanation in terms of his theory of vision. His general aim is to show the insufficiency of lines and angles to explain the facts, and to substitute the *faintness* of the visible appearance.

126. On the inverted retinal image, see 102*n*.

127. The 'question' concerned time, as shown by the marginal letter, and, no doubt, it turned on the text, 'To-day shalt thou be with me in paradise' (Luke XXIII 43). *Cf.* Berkeley's notion 'that the Resurrection follows the next moment to death.' (*Fraser* II p. 19); on time, see 4*n*.

Mr. Deering was probably Daniel Dering (or Deering), cousin of Sir John Percival, and Commissioner of the Wine Licence in Dublin, who died in 1730. Dering's aunt is mentioned in 201, and several of the Dering family are mentioned in the Egmont Papers (*Hist. MSS. Commission*, see *Rand*, p. 57*n* and Index). Through the Dering family Berkeley made the acquaintance of Sir John Percival, afterwards first Earl of Egmont, his life-long friend and correspondent. Percival's mother was Catherine, fourth daughter of Sir Edward Dering, Bart.

Percival was at his house in Capel Street, Dublin, apparently for the first time, on 29th November 1708 (see Egmont Papers, vol. 127, p. 195); about that time he met Berkeley, *cf.* 'these few months that I have the honour to

be known unto you' (*TV* Dedic.). Since the *CPB* must have been more or less finished by the autumn of 1708, these references to the Dering family in the early part of it show that Berkeley made the acquaintance of the family some time before he met Percival.

128. Apparently a sarcastic comment on the notion of matter as 'something we know not what,' see 40*n*, and 364, 'filling the world with a mite.'

129. 130. On motion and velocity in relation to space, see 99*n*.

131. For the hypothesis of matter, see 40*n*.

The will is very fully discussed in the *CPB*; some ten entries in notebook B, and almost seventy in A, deal with it. Berkeley is chiefly concerned to relate the will to our other faculties, and to deny that we know the will as we know ideas.

Other accounts of the will are critically considered, Locke's in 145a, 357, 423, 598, 611, 616, 624, 626–8, 630, 653–4, 797, 879, Hobbes' in 796–8, 806, 822, Descartes' in 798, Malebranche's in 107, King's in 142. The will is the only active power, in 131, 155, 712; it is considered in relation to our cognitive faculties in 166, 644–5, 674, 808, 815, 833; for the long debate on will and understanding, see 362a *n*. Will and volitions give Berkeley some trouble: at first he is inclined to regard the will as the unknown substratum of acts of will; later he denies the distinction, finally concluding that will is everywhere the same, and that whether it is to be called one or many is a question of words—see 615, 615a, 621, 635, 714, 788. Will is identified with soul in 478a, 814, and with pure spirit in 828–9, 847, 848; it is the seat of personal identity 194a, and is the only causal power 499, 699. Concrete willing is coterminous with personal existence, but the abstraction *will* comes under the general condemnation of abstract ideas, 867, *cf. Princ.* 143. The divine will is touched on in 610, 712; see also 161, 629. Berkeley's chief negative contention is the denial that will can be the *object* of thought, *i.e.* he holds that we have no *idea* of the will, 657–9, 663, 665, 672, 684, 706, 756, 792, 828, 875, *cf. Princ.* 135*ff*.

132. 133. Denying infinite divisibility of concrete magnitude, spatial and temporal, while granting it of abstract magnitude—see notes on 8, 11, 259.

For *ratio partium extra partes*, see *Locke* II xiii 15; for magnitude visible and tangible, see 203*n*; for minimal points, see 59*n*.

The reading 'not all divisible' (Fraser and Johnston) in 133 makes nonsense of the entry; I have restored 'not at all divisible'; for the MS. has a mark of insertion between *not* and *all*, and a blot or erasure immediately above it. As restored the reading agrees with the interlinear addition in 132. It is true that the entry as a whole is scarcely consistent with the first part of 132, but then 132 is not consistent with itself, thanks to the addition 'or not at all perhaps.' No doubt Berkeley's views on the point were at the time in a fluid state; he was feeling his way into his doctrine of abstraction, and gradually came to recognize that the coexistence and succession to which he is conceding infinite divisibility are abstract ideas, and therefore, in his final doctrine, non-existent.

134. Locke (II xv 9) says that space and duration include parts, that indeed it is their nature to consist of parts, and yet that they count among the simple ideas, because their parts are all of the same kind; Berkeley, arguing that simple ideas should be simple, queries the claim of space, colour, and power to come under this category and claims to be the first to raise the question. For his later position about simple ideas, see 53*n*. 'hardly separated,' *i.e.* sharply distinguished. Relations (see 540*n*) are of course involved in the notion of *parts*. 'nor' perhaps read 'or.'

135. Berkeley opposes the notion of infinite space, partly as the supposed background of external, absolute space, and partly as a supposed attribute of God; see 290, 417–8, 695, *TV* 126, *Princ.* 116–7. Even if we imagine it, he here argues, we are imagining it only in relation to a moving body, and the space traversed by the body may quite as well be supposed annihilated as persisting; on space, see 18*n*.

136. Therefore we cannot see matter, nor touch it—the argument against matter from the immediacy of the object of sense.

137. 138. Locke (II xiii 25) says that there is no idea of extension in taste and smell. 'Why not?' asks Berkeley. He may be querying Locke's facts (for there is a feeling of volume in both taste and smell); but more probably he

is accepting Locke's facts, and asking the reason why, arguing, in effect, that the heterogeneity of smell and taste ought to carry with it the heterogeneity of sight and touch (see 28*n*) ; *cf.* 240–1, 497, *TV* 45, 145 ; for 'blue and red' see *TV* 131.

139. The first open reference to authorship in the *CPB* ; for the projected books, see 508*n*. The *Principles* appears to have been planned before the *Theory of Vision* (see *Princ.* 43). The Introduction to the *Principles* is here in view, but not the Introduction as we have it now ; for as he worked, Berkeley's interest in simple ideas waned (see 53*n*) and was more or less replaced by his doctrine of abstract ideas—the subject of the existing Introduction.

140. On the problem of the horizontal moon, see 125*n*. Hecht is wrong in charging Berkeley with inconsistency about the size of its visible extension ; both in the *CPB* and in *TV* (70, 74) Berkeley insists that the horizontal *visible* moon is not greater than in the zenith ; indeed, following Malebranche, he says that on the horizon it is rather less ; the *tangible* moon in his account is thought greater on the horizon ; on the optical angle, see 73*n*. Johnston omits 'equal' before 'angles.'

141. 142. The beginning of a series of entries on ethical questions which occupies the next few pages, and is mainly concerned with Locke's doctrine of liberty, indifference, and uneasiness, and King's related doctrine of *potentia*.

'A.B.' is William King, Archbishop of Dublin (1650–1729), author of *De Origine Mali* (1702). I was led to this identification, here and in 159, by observing that Berkeley had written 'A.B. of Cashel' on a page of the *Chapman MS.* (Trinity College, Dublin) ; I then found that several of these entries refer to passages in the *De Origine*. *Potentia* was, for King, an important concept, applying both to the divine *arbitrium* and to man's freedom of choice ; King intended it to express indifference and the will's delight in its own election.

Leibniz, who reviewed the *De Origine*, said that King's Deity would be so 'indifferent' that He would not care whether the world was made well or not. On indifference, see 143*n* ; on will, see 131*n*.

143. According to Locke's complicated theory of action (II xxi 71) some

present uneasiness accompanied by desire determines the will, together with 'an indifferency of the operative powers' which remains even after the determination of the will. Berkeley was critical of this theory, 141*n*, 149, 158–9, 166, 610–3, 624, 743; in his sermon on Life and Immortality (11th January 1708) written while he was filling the *CPB*, he writes, 'I know a late incomparable philosopher will have the present uneasiness the mind feels, which ordinarily is not proportionate to the goodness of the object, to determine the will'; but he could not conceive a rational agent indifferent to pleasure and pain, and he regarded indifference as leading to 'inconsistency and mutability in acting [which] though it be an imperfection is looked on as a mark of *freedom*' (*Princ.* 57, *cf. Alc.* VII 17). Descartes calls indifference 'the lowest degree of liberty' (*Med.* IV), and Malebranche (I i) denies the freedom of indifference and places liberty in the mind's power of turning towards agreeable objects. *Cf.* 145*n*.

144. Berkeley accepts nature as an order of reality directly dependent on the will of God, 312, 838; in consequence he recognizes laws of nature which control sensation and which have a beneficent tendency, here and in 843; these laws are the general principles of divine action; our knowledge of them is imperfect, partly because of the limitations of our minds, but also because the laws themselves, being the effects of will, may be changed, 221, 734, 884, see *Princ.* 30, 62, 106–7, 146, 153. On Berkeley's hedonism, see 541*n*.

145. 145a. 146. Berkeley does not accept the conception of the prescient 'Calculator,' but is using it, as the *verso* comment shows, as an argument against Locke's doctrine of uneasiness. Locke (II xxi 71) says, 'That which in the train of our voluntary actions determines the will to any change of operation, is some present uneasiness . . .' Berkeley thought this doctrine incompatible with the spontaneity of finite spirits. He argues that there can be will without uneasiness and uneasiness without will, 611, 613, 624, 628, 707; uneasiness is for him an idea, and therefore inactive, 653; he suggests that complacency, and not uneasiness, precedes volition, 630. God and blessed spirits *will*; yet they have no uneasiness, 610; there is no uneasiness in heaven, and, for Locke, there can be no will there, 357, 423, also 166, 598, 743, 833, 857. 'Billiard balls,' see *Locke*, II xxi 4; on liberty, see 149*n*; on will, see 131*n*, *cf.* 143*n*.

147. 'the difficulty' is probably 'the Barrovian case' (see 75*n*, *TV* 29–40), the test problem for Berkeley's new theory of distance. Barrow had pointed out that the received theory could not account for the confused appearance of an object placed in a certain position relative to the retina, and Berkeley is speculating here as to the effect on the judgement if this confusedness disappeared, the object remaining *in statu quo*; would the object look smaller or nearer? Similarly Molyneux (*Dioptrics*, p. 119, quoted in *TV* 40), making reference to this problem, writes of 'an object placed as in this 9th section.'

148. This experiment, described more fully in 278, appears to be the same in principle as Stratton's experiment, which (see Stout, *Manual of Psychology*, 4th edition, pp. 480–1), refutes the suggestion that one direction is felt as upward, because we have to move the eye-ball upward, and proves that the distinctions between up and down, and between right and left, belong primarily to touch, and are for the eye acquired meanings, thus largely confirming Berkeley's theory.

Berkeley does not refer to the 'inverting glass' in his books. Molyneux (*Dioptrics*, p. 212) speaks of 'my frequent use of inverting telescopes' as reducing 'the disagreeableness of the *inverted* Prospect,' but he does not go all the way with Hook, who had said that 'use and custom' alone make us judge objects erect. On the inverted retinal image, see 102*n*.

149. The duplicate of this entry (see *folio* 164 *verso*, inverted) adds the reference to *Locke* II xxi 71. Berkeley's point is that we do right or wrong in virtue of the act of will; but on Locke's theory this act comes first, and the free choice as to whether or not to give effect to this act comes subsequently; thus virtue and vice would be excluded from the area of freedom, and Locke's liberty of the 'operative faculties' would not touch the heart of the problem; it would be psychological freedom without moral freedom, see 156*n*. For a discussion of human liberty, see *Alc.* VII 16*ff*.

150. In his discussion, in 528, of equality as congruence Berkeley says that if sight is to judge congruence, then all lines seen under the same angle are equal, which the mathematicians will not acknowledge. In this entry Berkeley is arguing that tangible magnitude is judged and not seen, and judged by other signs than optical angles (see 73*n*), because one's thumb can hide a tower

('an easy experiment'), and 'whatever object intercepts the view of another hath an equal number of visible points with it,' *TV* 79. On congruence, see 515*n*.

151. 152. 153. A group of entries dealing with Locke's teaching on colour; for Locke colours are simple ideas (II iii 1) and therefore indefinable (III iv 4). Berkeley seems to have experimented a good deal in colour analysis along the lines of Newton's *Optics*, and he does not accept colours, or most colours, as simple ideas; see 242, 489, 502–4, 526, 551, 562, 662, 664; on simple ideas, see 53*n*; on sounds compared to sights, see 220; on definition, see 44*n*.

Sensible things are described as 'thoughts' also in 164, 181, 226, 228, 280, 282, 286, 293, 299, and perhaps in 194, 220, and *TV* 41; in the latter portion of the *CPB* and in the *Theory of Vision* (mostly) and in the *Principles* (entirely) 'idea' is substituted. They were 'thoughts' for Berkeley, because thought of; but when he had considered the question of terminology from other angles, he decided to confine 'thought' to the subject (see 37a, 437a) and gave up using it of the object.

154. On the nature of the soul, see 14*n*. The question about our knowledge of the soul, raised in 25 and glanced at in 44, here receives a first answer, *viz.* that the soul is a complex idea, that it is known and may be defined. This answer is modified in 178, criticized and rejected in 230; from that time on it became a fixed point with Berkeley that there is no idea of active spirit. Other questions remained: How are the soul and mind to be classed? Are they passive? Are they active? Are they one with their 'contents' (ideas), or with the active being which has the ideas? After a long debate (see especially 576*ff*) Berkeley decides that they are active, and he identifies them with 'this perceiving active being [which] I call *mind*, *spirit*, *soul*, or *my self*' (*Princ.* 2). On definition, see 44*n*. In the second edition of the *Principles* (1734) Berkeley, without any alteration of doctrine, so far alters his terminology as to admit that we may be said to have a 'notion' of spirit (sect. 27, 89, etc.).

155. On powers, active and passive, see 41*n*; on will, see 131*n*, and *cf.* *Maleb.*, *Excursus* on Second Causes, 'All the efforts that my mind can make can discover no other force, efficacy, or power, than in the will of the infinitely perfect Being.'

156. 157. Is Berkeley here stating his own views for the time being, or merely those of others? It is not clear which. The 'tis true' appears to make the views his own; but in that case the entries would conflict with 149 (on which see note) and would involve Berkeley in a virtual denial of human freedom.

Locke placed freedom in the operative faculties, and made the will itself determined by feeling ('uneasiness'). This freedom is veiled determinism; it is not the freedom of spontaneous will, but merely the freedom of putting into effect the determined volition.

157 may refer to King ('A.B.,' see 159*n*) or to the occasionalists. Malebranche taught that we *will* (*e.g.*) to move our arm, and we know what will happen as a result of our will; but we do not know *how* to move our arm; and in point of fact we do *not* move it, but God moves it when we *will*.

158. 159. Berkeley reminds himself that awareness of voluntary action does not imply the doctrine of indifference taught by Locke and King. He has King especially in view here; on 'the potentia of A.B.,' see 141*n*. King (*De Origine Mali* V v 5) says, in language similar to that of 157, 'Omnes vero sibi actiones voluntatis suae imputant, & sive bonas, sive malas pro suis proprie & vere habent,' and he infers that men partake in the universal *potentia*.

For Berkeley, will is not blind, either in God or in man, and therefore the freedom of the will does not involve indifference (see 143*n*), *i.e.* action without motive, action detached from desire. Desire as a faculty may be called indifferent; desire does not desire; but the concrete *ego* that desires is certainly not indifferent in respect of what it desires and wills.

160. Locke (II xxi 38) argues that the will is determined not by greater good but by uneasiness (see 145*n*), 'because all who allow the joys of heaven possible, pursue them not.'

161. The 'I will will them' in the previous entry reminds Berkeley of the will to will, and the will to will to will—a theoretical difficulty (stated in *Locke* II xxi 25) here called 'the progression of wills in infinitum.'

162. 163. Ethics is considered in relation to mathematics in 239, 336, 697, 755, 853. Berkeley endorses Locke's *dictum*, 'morality capable of demonstration'

(III xi 16, IV iii 18), but he finds mathematical method hard to apply in ethics, and still harder in metaphysics (239) owing to the ambiguity of words. On definition, see 44*n* ; with ' prejudices ' *cf.* 239, *TV* 138.

' demonstrate the truth ' ; demonstration with its subjective counterpart, certainty (see 693*n*), figures largely in the *CPB*. Demonstration was the cry of the hour ; Clarke had just published his *Demonstration of the Being and Attributes of God* (1705–6) ; Newton in his *Optics* (1704) writes, ' My design in this book is not to explain the properties of light by hypotheses, but to propose and prove them by reason and experiments.' Defoe in his *Consolidator* (1705, p. 59) has an amusing skit on this prevailing fashion. Berkeley shared the general confidence in reason. He is to write on demonstration in his Introduction (212) ; he elaborates a demonstration *more geometrico* of his New Principle (378–9) ; he writes, ' W^{t}. I say is Demonstration, perfect Demonstration ' (551), and again, ' I shall Demonstrate all my Doctrines ' (586) ; and he repeatedly asserts, as here, that ethics and metaphysics have as good a claim to certainty as has mathematics. But towards the end of the *CPB* a change is noticeable ; he becomes critical of Locke on demonstration and certainty ; for Locke makes demonstration depend on abstract ideas (586) ; Locke rates sensitive knowledge scarcely higher than opinion, and Berkeley in 466 had opposed sense to reason and demonstration ; now (740) he decides that ' we must wth the Mob place certainty in the senses,' yet remaining certain that there is a God and a future judgement (776, 813) ; demonstration becomes verbal (734, 804), and finally he writes, ' I must not pretend to promise much of Demonstration, I must cancell all passages that look like that sort of Pride, that raising of Expectation in my Readers ' (858) ; see also 80, 336, 363, 376, 426, 468, 532, 562, 584, 693, 697–8, 705, 719, 728–32, 739. Claims to demonstration occur in his books ; *e.g. TV* 90, 95, 121, 154, *Princ.* 61 ; but demonstration is not stressed in the *Principles*, and sections 96, 107, tone down his previous claims and limit their scope.

164. 165. The second entry limits the assertion to *visible* extension (see 18*n*), but otherwise the two entries amount to the same thing, *viz.* that space seen is an expanse of homogeneous points of colour in the mind (*cf.* 365*n*). Hecht is wrong in taking 165 as a concession to popular opinion in substantial conflict with 164. ' Thoughts ' must be understood as non-mental things thought of ;

for Berkeley's use of the term 'thoughts' for sensible things at this period, and for his subsequent change to 'idea,' see 153*n*.

166. The first sentence states King's theory of moral action, which is much indebted to Locke's account (II xxi). Berkeley proceeds to criticize it on the grounds that moral action demands moral choice of the good as good. For uneasiness and the identification of 'A.B.' with King, see notes on 141–2, 145. On will, see 131*n*.

167. There is a fuller analysis of the same simple ideas in 460, see 53*n*; extension is analysed also in 105, motion in 184, time in 4, number in 104.

168. Berkeley was interested in these mathematical problems because of their bearing on the alleged infinite divisibility of matter, see *Princ.* 123–132, and his essay *Of Infinites*; for the angle of contact, see 309*n*, 381; for fluxions, *i.e.* the infinitesimal calculus, see 333. The calculus had its origin, in part, in the problem of drawing tangents to curved lines.

169. For the hand that may hide the firmament, see *TV* 79; on the visual sphere, see 97*n*; on minimal points, see 59*n*.

170. 171. 172. Here are juxtaposed the three problems which Berkeley used as tests of the three parts respectively of his theory of vision, the Barrovian case (see 75*n* and *TV* 29*ff*), the test for distance, the horizontal moon (see 125*n* and *TV* 67*ff*), for magnitude, and the inverted retinal image (see 102*n* and *TV* 88*ff*) for situation. On the purblind, see 199*n*, *TV* 37, and *Mol.* p. 108.

173. Marked *N* (Natural Philosophy) in the margin, this entry is probably considering an account of the laws of nature as the experience 'that such and such ideas are attended with such and such other ideas, in the ordinary course of things,' *Princ.* 30; *cf. TV* 147.

174. These two methods of judging magnitude are stated as Wallis's opinion in *TV* 76, and in the following sections Berkeley explains the extent to which he accepts them, using the blind man of the Molyneux problem (see 27*n*) as part of his argument; on the optical angle, see 73*n*; on the connection

between visible and tangible, see 28*n*. 'Extension' in this entry means magnitude; see 18*n*.

175. Berkeley speculates on the possibility of enlarging the sight also in 219, 749, 835, *TV* 83–7, and concludes that the enlargement, in theory a perfection, would in practice be impossible, because it would destroy the usual connection between visible and tangible; on magnification, see 94*n*.

Locke (II xv 9) says that the sensible point (see 59*n*) is 'to the sharpest eyes seldom less than thirty seconds.' Molyneux (*Dioptrics*, pp. 229, 243) speaks to the same effect, adding 'armed with a telescope it may discern an angle less than a second.'

176. 176a. On terms metaphorically applied to mental operations, see 544, *Princ.* 144 'terms borrowed from sensible ideas,' and *Locke* III i 5. For metaphors as the dress of ideas, see 737, *Princ.* Introd. 24. As we have no ideas of the operations of our minds (see 490*n*), we have to use metaphors, Berkeley holds, when speaking of them.

177. 177a. Locke (II xxiii 33, 35) makes the two statements about God, which Berkeley cannot reconcile. In 782 Berkeley calls the idea of God 'impossible,' idea being passive and spirit active.

Hecht's note, attributing an error to Berkeley, is based on the misreading 'complex and uncompounded.' There is no error in the text. Berkeley first wrote 'complex and compounded,' and then inserted 'or' over the '&,' and Hecht or Lorenz mistook the 'or' for 'un.' On God, see 107*n*. 'his' (after 'essence'), a slip for 'is.'

The quotation on the *verso* from Le Clerc (*Logic* I viii 5) occurs twice more in the *CPB* in 348 (Latin) and 812 (English); the sentiment is frequent in Le Clerc, and would impress Berkeley by its resemblance to his own panentheism and to Malebranche's doctrine of Seeing all things in God. It is difficult to reconcile with the traditional doctrine of the divine simplicity, and no doubt Berkeley meant the note to be a comment on the *recto* 'simple & uncompounded.'

Jean Le Clerc (1657–1736), philosopher and man of letters, is often mentioned in Locke's correspondence; Molyneux writes to Locke, 'I take Mons. Le Clerc to be one of the greatest scholars in Europe . . . but, I fear, an ecclesi-

astical preferment will be very difficult to be obtain'd for him' (*Some Familiar Letters between Mr Locke and several of his Friends*, p. 186). He edited the *Bibliothèque Choisie*, in which (vol. 22, 1711) the *New Theory of Vision* was reviewed. Two draft letters by Berkeley to Le Clerc, commenting critically on the review, are in MS. 39304 (British Museum). Le Clerc was a prolific writer. His works include *Logica sive Ars Ratiocinandi* (dedicated to Boyle) with *Ontologia et Pneumatologia* (dedicated to Locke), 1692; *Physica*, 1696; *Eloge de feu Mr Locke*, 1705; *Opera Philosophica*, 1698.

178. The imperfections of language and the relation of words to ideas are carefully studied in the latter part of the *CPB*, and the study is reflected in *TV* 120 and *Princ.* Introd. 18–25. Berkeley's general aim is to endorse Locke's attack upon jargon and his plea for a measure of wordless thought, while rejecting Locke's principle (III xi 8) that all significant words stand for ideas. This principle was at first accepted by Berkeley; it was an 'axiom,' and it heads the list of the nineteen propositions which form the Demonstration of the New Principle (378); but when he found that it entailed the doctrine of abstract ideas, he suspected it, and when he observed that words have emotive uses as well as cognitive, he rejected it. 'He that knows names do not always stand for ideas, will spare himself the labour of looking for ideas, where there are none to be had.' *Princ.* Introd. 24, *cf. Alc.* VII 8*ff.*

The principal topics discussed are: words such as thing, substance, existence, a source of difficulty and error, 223, 513, 537, 544, 553, 581, 596, 608, 627, 636, 702; the Solitary Man and language, 566, 607, 727; words and ideas, 356, 494, 591, 595, 661; the practice of wordless thought, 600, 696, 736; the due use of words, 750.

On the soul, see 14*n*; on the definition of the soul, see 154*n*; on definition in general, see 44*n*; on extension, see 18*n*.

179. No doubt the word 'collection' caught Berkeley's attention, for he defines *thing* as 'a collection of ideas' (*Princ.* 1), thus leaving no room in it for matter. On substance, see 80*n*; on simple ideas, see 53*n*.

180. The orbicular lattice is apparently 'the micrometer, or lattice of fine hairs, strained before the eye-glass in a telescope for measuring the diameter of objects'; see *Mol.*, pp. 138, 250.

If 'strait lines' means straight lines, as sometimes in Pardies' *Geometry* (see 432*n*), Berkeley is probably dealing with the apparent curvature of straight lines, *e.g.* the oar bent in water. But he usually calls straight lines 'right lines,' and therefore 'strait' here may have its other meaning 'narrow,' in which case he must be proposing a microscopic examination of a narrow line, in connection with the subject of length without breadth, see 85*n*.

181. The query is answered in the affirmative with regard to the faintness and magnitude of the moon in *TV* 72, 'there being no necessary, but only an experimental, connexion between those two things.'

The denial of necessary connection (see 195, 206, 227, 233, 246, 256, 794, *TV passim*, *Princ.* 31, *Maleb.* II ii 3) is part of the general case against universal mechanism, and is applied in particular to the customary connections between the visible and the tangible, and between the various sensations by which we judge distance, magnitude, and situation. On 'thoughts,' see 153*n*.

182. 183. Molyneux and Wallis explained the alteration of apparent magnitude by the alteration of the optic angle, either by itself or in conjunction with alteration of distance, appealing in proof to the alterations made by optical glasses. Berkeley discounts the direct influence of the angle (see 73*n*), distinguishes visible magnitude from tangible, and says that the latter is not *seen*, but is *judged*, and judged by means of things immediately perceived, *e.g.* confusion, faintness, etc. The group of notes on the speculum is not directly represented in the *Theory of Vision*.

On magnification, see 94*n*; on glasses, see 63*n*; 'blind' means the blind man of the Molyneux problem, see 27*n*.

184. For Locke (II viii 9) motion is a primary quality which produces simple ideas in us. Berkeley here denies its simplicity on the ground that the perception of it involves a succession of ideas; see notes on 167 and 450.

185. 185a. An important pair of entries disclosing the trend of Berkeley's thought. The *recto* merely concedes existence to the perceivable as a matter of tactics, but implies that it does not exist. The *verso*, a later comment, asserts its real existence, as in 802 and the *Principles*.

'persons not thinking,' see 83*n*. If the percipient does not exist when he

is not perceiving, scepticism about the soul is inevitable. Berkeley passed through the sceptical phase when he was writing the *CPB* (see 577*ff.*), and when he realized the danger, he corrected his first thoughts, and set his face against scepticism with regard both to subject and to object. On the perceivable and the reality of body, see 52*n*.

186. 187. 188. 189. 190. 191. Exercises in dioptrics and catoptrics, examining the effects of distance, confusion, and visual angles upon visible magnitude—see 94*n* and 182*n*; on glasses, see 63*n*; on the optical angle, see 73*n*. Molyneux (*Dioptrics*, pp. 173, 203–4) discusses inversion and the convex lens.

192. 194. 194a. On identity. There is a discussion of identity in the *Three Dialogues*, pp. 466*ff.*, where Berkeley distinguishes 'the abstracted idea of identity' from concrete sameness, 'where no distinction or variety is perceived.' He does not deal with it in the *Principles*, but the *CPB* shows that he had given it a good deal of thought.

He discusses personal identity in 194*a*, 200–2, the identity of things in 568, and both types, perhaps, in 192, 194, 681. He wants to allow identity to persons, but he does not know where to place it; he cannot, with Locke, place it in consciousness, and the *verso* entry 194a which places it in the will (see 131*n*) probably belongs to the later stage represented by 681. The identity of things for him consists in perfect likeness (*i.e.* as written on the *verso* opposite 192 and erased, 'where there is no difference intrinsical or extrinsical of a moment'). When he was writing the earlier part of the *CPB* he seems to have held the intermittent existence both of things and of persons, and at that stage identity must have been to him little more than an abstract conception; but later on he rejected intermittency, annihilation, and perpetual creation (*Princ.* 45–8), and accepted the continuity of the will, thus securing practical sameness both to the finite spirit and to sensible things.

Johnson's letter of 5th February 1730 (see T. E. Jessop's edition of the *Principles*, pp. 146–7) asks Berkeley some pertinent questions about the identity of the self. On substance, see 80*n*; on 'thoughts,' see 153*n*. The 'finite substances' of 194 is used broadly to include unthinking things, though technically they are not substances for Berkeley. The passage clearly refers to Locke's long chapter on identity (II xxvii), especially to section 2, where Locke considers the identity of three sorts of substances, and of identity deter-

mined by 'time and place of beginning to exist'; see also notes on 200 and 681.

193. In criticism of Locke (II xxiii 19) who makes 'spirits capable of motion'; *cf.* 822, and the query, 'Whether is a spirit mov^{d} wth absolute or relative motion or wth both?' (See above, p. 126.)

195. 196. An outline of the negative part of the argument about magnitude ('extension'); *cf. TV* 52, 'Neither angles nor distance being perceivable by sight . . .'; on the optic angle, see 73*n*; on 'no necessary connexion,' see 181*n*.

197. 198. Exclusive regard to the optic angle (see 73*n*) to the neglect of the confusion, faintness, etc., was, Berkeley held, the fundamental mistake in other theories of apparent magnitude, see 94*n*. The passage cited from Molyneux's *Dioptrics* explains magnification in terms of angles; on Molyneux, see 32*n*; on glasses, see 63*n*; 'but to no purpose' seems to mean that even if it were proved that magnification occurs without alteration of the angle, Berkeley would not be able to make use of the fact.

199. According to 189 the convex speculum diminishes; if it does not diminish proportionately in the case of the purblind (*i.e.* the near-sighted), that would indicate that magnitude is not judged by the angle alone.

200. 201. 202. On personal identity and consciousness. Berkeley's reference to an entry as a section should be noted; it shows that he regarded the *CPB* as a systematic composition, not as a string of jottings; he comments on his own work again in 252, 448a.

Identity in general is discussed in 192, on which see note; here Locke's doctrine (II xxvii 9*ff.*) that personal identity consists in consciousness, not substance, is under review. Locke writes, 'consciousness always accompanies thinking . . . and as far as this consciousness can be extended backwards to any past action or thought, so far reaches the identity of that person.' Locke admits interruptions of consciousness, which open the door for the possibility of a change of substance; and he certainly would accept a 'natural potential consciousness' (see his words in section 10, 'as far as any intelligent being *can* repeat the idea of any past action . . .'), and he says that Socrates and the

present mayor of Queenborough are the same person, if they agree in consciousness.

'praeternatural potential consciousness' is taken by G. A. Johnston to mean existence in the mind of God; but this explanation does not, I think, fit the context; for Berkeley is thinking of human consciousness, *cf.* 'all persons might be the same'; *praeternatural* does not mean *supernatural*, but *abnormal*. The reference is probably to questions about pre-existence, *e.g. Locke* II xxvii 14, 'I once met with one who was persuaded his had been the soul of Socrates.' No doubt the 'story of Mr. Deering's aunt' was of this character. On the Dering family, see 127*n*.

Berkeley was familiar with the term *consciousness*; he uses it again in 578, 681; but he never, I think, uses it for *mind* in his books; his doctrine of existence 'in the mind' takes a wrong turn if 'in consciousness' be substituted. In Locke's *Essay* 'consciousness' often means self-consciousness.

203. 204. 205. 206. 208. A group dealing with magnitude, the second main division of the *Theory of Vision*. Magnitude, or extension as he often calls it, seems to have given Berkeley more trouble than distance, and in this group he is concerned with his main crux, *viz.* Is there such a thing as visible magnitude *per se*? If so, what part does it play in our customary judgements of size? He is clear (203, *cf.* 213) on the distinction between visible and tangible magnitude, and he recognizes that external measures, inches, etc., have no application to visible magnitude, apart from experience. He then turns (204) to visible magnitude *per se*, 'the pictures' as he calls it, and his first conclusion is that visible magnitude is only proportion to other objects in the field (sphere or orb) of vision; and that (205) since this field is itself indeterminate it cannot yield any absolute standard of size. It follows that the true *media* of size-judgements are faintness, confusion, and other immediate data (see *TV* 77), including the muscular straining or relaxation represented by great and small angles; and as usual he insists that the connection of these things with magnitude is arbitrary. In 208, however, he seems to attempt a new approach to the same question; for he is not satisfied that there is any ratio between the act of perception and distinctness and confusion; for instance, it takes as much effort to see a part distinctly as its whole indistinctly; and the implication is that visual magnitude does play its part, and that distinctness, etc., are not the only bases of our size-judgements. On straining, see 210, *TV* 27, 77; on the visual orb and

sphere, see 97*n*; on necessary connection, see 181*n*; on optical angles, see 73*n*. In 206 for 'angle' (before 'faintness') perhaps read 'angles.'

207. Berkeley insists that his aim is practical, see *Princ.* 134, 143, Introd. 22, and Title-page; he even speaks (751) of 'banishing Metaphisics, etc & recalling Men to Common Sense'; for the benefit proposed to optics, see 726, to geometry, see 384, 428, *Princ.* 123, 131.

209. 'to avoid giving handle,' to the mathematicians 633–4, to Churchmen, 715; as regards his language Berkeley's aim was to avoid both the 'Lofty & Platonic' and the 'Subtil, Scholastic' styles (300), and to be plain and simple; in the *Draft Introduction* to the *Principles* (*Fraser* III p. 383) he says, 'I shall throughout endeavour to express myself in the clearest, plainest, and most familiar manner.'

210. Attempting to prove the insufficiency of the optical angle to explain our judgements of magnitude; see notes on 182, 198. For alterations in the convexity of the crystalline (eye-ball), both those due to age and those produced by experiment, see 218, 255, 271, 296, *Maleb.*, I vi and ix, *Mol.* pp. 103–4; on magnification, see 94*n*.

211. 'pictures in the fund,' *i.e.* the retinal image, discussed in *TV* 88–119; see 102*n*. The *Theory of Vision Vindicated*, 48–61, explains more clearly Berkeley's meaning; in this later work he distinguishes two senses of the term *picture*; there are the pictures on the retina, truly visible, modes of light and colour, the proper and immediate objects of sight; and there are the tangible figures, projected by tangible rays upon the tangible retina; these latter are often called *pictures*, but being tangible they are not properly objects of sight, and they ought rather to be called *images*. In this entry Berkeley is considering, not the situation of objects, but their size, and he decides that retinal pictures can be no measure of absolute size; for we can imagine ourselves seeing the pictures on another person's retina, and they, of course, like other visible objects, will vary in size according to their distance from the observing eye. See *TV* 116*ff.* for the same point made about situation.

212. 'Introduction,' *i.e.* to the *Principles*, which was the parent book, the

Theory of Vision being an offshoot from it (*Princ.* 43). A discussion of demonstration would be out of place in an Introduction to the *Theory of Vision*, and the words 'the design of the whole' apply naturally to the *Principles* as originally planned (see 508*n*). There is no intimation elsewhere of any intention to write an Introduction to the *Theory of Vision*, while the Introduction to the *Principles* receives much attention in the *CPB*. It has a marginal letter (*I*), which was originally prefixed to no less than 89 entries, but in 26 cases the *I* has been stroked out, clearly owing to changes in the design of the Introduction. Of these changes the most important was the abandonment of the intended discussion of demonstration (see 163*n*). Abstract ideas displaced it, and from 586, which originally was marked *I* and declares Berkeley's intention to treat of demonstration in the Introduction, we may infer that the dependence of Locke's doctrine of demonstration upon abstract ideas led to the change.

213. On the two sorts of magnitude, see 203*n*; on the optical angle, see 73*n*.

214. The question concerns the nature of our judgements of size; and from 205 it would seem that the sphere of the retina is another name for the visual sphere, on which see 97*n*.

215. 216. If our first impressions about distance, depth, and inequality be proved erroneous, why should we trust our first impressions about size? The fact is, Berkeley suggests, that we see sights which suggest size, just as we hear words which suggest thoughts. On solids, see 78*n*; for the comparison of sights and sounds, see 151–2; 'thoughts by the ear,' *cf.* 220 and *TV* 50, which gives 216 almost *verbatim*. On extension in the sense of magnitude, see 18*n*.

217. On large numbers, see 77*n*. For 'form'd' Johnston reads 'found'; Fraser omits the entry.

218. 219. Dealing with arguments used by Gassendi and Malebranche. Gassendi (*TV* Appendix, 2nd edition) said that an enlargement of the pupil augmented the retinal image, using this 'false principle' to explain the size of the horizontal moon. Malebranche (I vi; *cf. CPB* 255, 257) said that the short-sighted have their crystallines more convex and see the objects smaller; and he argued that since we are not sure that any two men have eyes exactly alike, we cannot know that there are two men in the world who see a body the same

size. Berkeley opposes this stress on the 'conformation of the Eye'; he says that the *minimum visibile* with the visual angle subtended by it determines, or principally determines, visible magnitude, and that since we can experiment ('try the angle') we can find out whether two men see the same thing of different sizes.

He then (219) turns to the other relativity argument, dealt with by Malebranche (*ib.*) and referred to by Locke (II xxiii 12), *viz.* that if we had superhuman acuteness of vision ('if a man could see seconds'), we should see things much bigger than we do, and he argues that the *minimum visibile* (see 59*n*), as well as the visual sphere (see 97*n*), is therefore a standard of visible size. These two sorts of 'purely visible magnitude' are not to be confused with the 'Two sorts of bigness' which differ *toto coelo* (213), *viz.* visible and tangible magnitude. For the enlargement of sight, see 175*n*; on the optical angle, see 73*n*.

220. The substance of this entry appears in *TI* '66; the supposition is intended to illustrate the closeness of the connections established by experience, and particularly the fusing of visible and tangible magnitude; on 'heard thoughts,' see 216*n*.

221. On adequate ideas, see Locke II xxxi. Locke classifies ideas according as they are adequate or inadequate; for Berkeley *all* ideas of sense, being realities in the mind, are adequate; for they 'are perfectly known; there being nothing in them which is not perceived' (*Princ.* 3); but the laws of nature (see 144*n*), *i.e.* the regular connections of these ideas, are not perfectly known to us, not only because of our limitations, but also because they, being effects of God's will, may be changed at any time.

222. Because, for Berkeley, sensible things are collections of ideas (see 112*n*), he sets primary and secondary qualities on the same level (see 20*n*), and he usually places both types in the mind, but he is prepared, as here, to place them outside the human mind, having regard to their external origin and their distinctness from mind; see *Princ.* 90. On simple ideas, see 53*n*.

223. On knowledge without words and the defects of language, see 178*n*.

224. 225. 226. 227. Questions on the visible and the tangible, all arising from

the problem of the inverted retinal image, and all bearing the distinctive marginal sign of that section of the *Theory of Vision* (see 102*n*). How would the blind man of the Molyneux problem (see 27*n*), on receiving sight, collate the immediate data of sight and touch when he perceives a man erect on the earth? Would the sight of the man's head be at all like the touch of it? Would there be any apprehension of number by sight? Would he connect the oneness of the visible head with the oneness of the tangible head, or the twoness of the visible legs with the twoness of the tangible legs? Berkeley answers these questions in *TV* 100*ff*.

These entries, read along with the *Theory of Vision*, are perfectly plain, without it they would be a riddle. Could any one in his senses compose *de novo* the cryptic 224, and solemnly write it out in a notebook? Yet as a comment on an existing composition it is perfectly plain and intelligible. I think, therefore, that a somewhat new explanation of the close correspondence between some, at least, of the entries and the publications is required (*e.g.* between 226 and 227 and *TV* 103, 106), and I suggest that Berkeley must have had a draft composition before him when he started to fill these notebooks. This composition may well have included, not only a discussion of vision, but a discussion of time (see 4*n*) and of infinitesimals (*cf.* the essay *Of Infinites*) and an outline of his first conception of the argument for immaterialism ('my first arguings,' 265). See my Introduction, pp. xxxiv–xxxix.

If this conjecture be sound, we must modify the received conception of the function of the *CPB*; the *CPB*, instead of being a commentary on Berkeley's reading, put together for purposes of his writing, must have been in part a commentary on his writing, put together for purposes of rewriting. The suggestion is intrinsically probable, especially in respect of the first notebook (*B*), and it would help to explain the existence of the elaborate system of marginal signs and letters; for some such system of cross-references between the draft composition and the notebook would be essential.

On the connection of ideas, see 181*n* and *TV* 51; on the heterogeneity of sight and touch, see 28*n*; on the early use of 'thoughts' for 'ideas,' see 153*n*; this (226) is a very good instance of the change, because the corresponding passage in *TV* 103 has 'ideas.'

228. Up to this stage (*cf.* 293) Berkeley credited body with powers to raise

thoughts; therefore 'things' in this entry must be confined to unthinking things. The entry is a summary account under three heads of non-spiritual reality, an attempt to combine immaterialism with Locke's doctrine of active and passive powers. Later (see notes on 41, 52, 153) Berkeley decided to confine 'thought' to the active spirit, adopted 'idea' for the sensible object, dropped the 'powers' theory, and thus reached the summary of reality, found throughout the *Principles*, *viz.* spirit and ideas, a summary which has no place for matter. •Note the substitution of 'cause' for 'occasion.'

229. On magnification, see 94*n*; on the optical angle, see 73*n*.

230. Malebranche holds that there is an idea of the soul, known to God; but when he is speaking precisely, as in III ii 7, he denies that we know the soul by idea; 'we know her not by her idea . . . we know her only by conscience . . . we know nothing of our soul, but what we feel pass within us.' Berkeley's mature doctrine of self-knowledge (see *Princ.* 135*ff.*) is similar to that of Malebranche; for both thinkers it is a case of 'knowledge without ideas' and in *Mot.* 21 Berkeley uses Malebranche's term for it '*conscientia quadam interna*.'

This is the first mention of Father Nicholas Malebranche (1638–1715), whose main work *De la Recherche de la Vérité* (1674–5) was well known to Berkeley (see his *De Ludo Algebraico*, 1707), and is often referred to in the *CPB* (in criticism, for the most part), see 255, 257, 265, 288, 358, 388, 424, 548, 686, 686a, 800, 818, 888. For its influence on Berkeley's philosophy, see my *Berkeley and Malebranche* (1934).

231. Berkeley makes this comparison both under *distance* and under *figure* (magnitude), *TV* 9, 23, 65; the sudden transitions of thought, he holds, make us overlook the immediate objects, and fancy that the mediated object is immediately given. Note the addition 'or Distance' as in 220 (*verso*).

232. On magnification, see 94*n*.

233. On the problem of the horizontal moon, see 125*n*; Berkeley thinks that the optical angle (see 73*n*) and the inferred distance are not sufficient explanations of the phenomenon, and wishes to refer it to faintness of appearance.

234. The term 'corpuscularian' was used broadly to cover what we should now call materialism and mechanism, and, more narrowly, for the atomism of Epicurus and Gassendi. In *Princ.* 50 we find 'the whole corpuscular philosophy,' *i.e.* the physics of the day, and *ib.* 25 'corpuscles' occurs in the description of Locke's theory of sensible qualities. His theory of the dependence of the secondary qualities upon the minute parts or corpuscles of the primary, probably derived from Boyle, is described by Locke himself as 'the corpuscularian hypothesis' (IV iii 16; *cf. Siris* 232), and as the only other entry (533) to use the term mentions the passage from Locke, there can be little doubt that this entry has Locke in view.

Clearly then 'the Essences of the Corpuscularians' are the real and nominal essences which Locke sets forth in III vi 2*ff.* The 'real essence' is the 'something we know not what,' depicted and ridiculed in *Princ.* 101; it conflicts with Berkeley's view that all real things are in the mind, and therefore perfectly known. The 'nominal essence' is made by the mind; it is the abstract idea to which the name of the sort is annexed; all general knowledge, says Locke (IV vi 13) 'consists barely in the contemplation of our own abstract ideas.' The abstract idea (see 318*n*) became the focus of Berkeley's attack on Locke, and this entry may mark the first turning of his attention to the subject; for real essence, *cf.* 44, 536.

235. 'Perfect Circles &c,' probably a reference to the theory, attributed to Plato, of mathematical objects which conform exactly to the definitions, and are viewed as archetypes of sensible figures. Perfect circles are mentioned by Bacon, *Nov. Org.* I xlv. Abstract ideas of circles, etc., are denied in 238.

236. 237. Berkeley here considers two errors which have promoted belief in infinite divisibility (see 11*n* and *cf.* 342); external existence and infinite divisibility are discussed in *Princ.* 125*ff.*, and the mistake about magnification is touched on in *TV* 85 (see 94*n*). 'They who knew not Glasses,' see 63*n*.

238. See 235*n* and, on abstract ideas in general, 318*n*.

239. On demonstration in general, see 163*n*, in ethics, see 669*n*.

240. 241. 242. 243. Notes on the comparative distinctness of the data of

various senses, and on the connection between this distinctness and extension (see 18*n*). Tangible data are, Berkeley holds, the most vivid ; next come the visible. Visible and tangible are heterogeneous (see 28*n*), but they both suggest extension. King (*De Origine Mali*, I ii 14) says that if we had only the three senses, sound, smell, and taste, we should not even imagine there was such a thing as space. Time is connected with the distinctness of sense-data in 647, and in *TV* 145 sights and sounds are contrasted in respect of distinctness. On taste and smell, see 137*n* ; on colour and extension, see 85*n* ; for experiments in green, yellow, and blue, see 489, 502–5, 526.

244. An objection to Berkeley's solution of the problem of the horizontal moon (see 125*n*), stated and answered in *TV* 71, 72.

245. 249. 250. 251. 252. A group dealing with the quadrature of the circle, see also 360*n*, 395, 457–8, 510–11. Strictly speaking, there are two kindred problems : (*a*) to square the circle, *i.e.* to find a square equal in area to that of a given circle, and (*b*) to ' rectify peripheries,' *i.e.* to find a straight line equal to the circumference. Berkeley was interested in both problems, and distinguishes them in 457 ; but he fails to distinguish them in 249, 510–11, and perhaps some other entries.

These problems had in Berkeley's day acquired celebrity owing to the Hobbes-Wallis controversy. Berkeley's interest in them lay in their connection with infinite divisibility. He held that any given sensible line must be composed of sensible points, which are indivisible *minima* (see 59*n*), and is not, therefore, composed of elements too small to be sensed. Similarly the area of a figure is to be measured by the number of sensible points it contains. If then you know the number of points in a given curve, you can in practice find a straight line equal to it ; and in practice any given circle can be squared provided that the number of points it contains is a perfect square (*cf.* 458, 469).

For the magnifying glass objection, see 94*n*. In 249, note ' therefore there is no difference '—a hint of the New Principle. *esse est percipi* (see 265*n*). In 251 ' in squaring or other curves ' is probably short for ' in squaring the circle or dealing with other curves.'

246. This entry has the marginal sign peculiar to those dealing with the

inverted retinal image (see 102*n*) ; 'smooth & round' refers, no doubt, to the globe in the Molyneux problem (see 27*n*), which in *TV* 94*ff* is considered in connection with the retinal image. On 'no necessary connexion,' see 181*n*.

247. 248. It was commonly held that geometry supplied formal proof of the infinite divisibility, but Berkeley maintained that this was a mistaken notion, due to a confusion between concrete sensible extension, such as this inch (*cf.* 260–1, 341, 341a) and some much larger abstract extension supposed to be represented by the inch ; see 11*n* and *Princ.* 123–8.

Determined or *determinate* were the terms adopted by Locke (see his Ep. to the Reader) in his fourth edition in place of *clear and distinct*.

253. 'A meer line,' *i.e.* abstract length without breadth (see 21*n*) ; on points, see 59*n*, 259*n* ; on colour and extension, see 85*n*, *Princ.* Introd. 7.

254. In his publications Berkeley from the first insisted (*e.g. Princ.* Introd. 10) on the distinction between the legitimate process of abstraction, which consists in considering separately *separable* parts, and the illegitimate process of framing abstract ideas. Here he appears to admit that we can consider separately *inseparable* parts, such as length without breadth (see 21*n*, 318*n*, *Princ.* Introd. 16, 2nd ed.).

255. 257. These remarks on Malebranche's (see 230*n*) doctrine of sense-relativity are explained in the note on 218.

256. This entry, too, probably refers to Malebranche, who says (I ix) that the size of the retinal image is the third medium by which we judge distance ; it receives point from the problem of *TV* 70–3 as to why faintness which ordinarily magnifies visible magnitude does not always do so.

'greatest pictures,' *i.e.* the largest retinal images, measured by occupancy of the visual sphere (*S.V.*, see 97*n*), or by the number of *minima visibilia* (*M.V.*, see 59*n*).

258. On the incommensurability, see 29*n* ; on *M.V.*, see 59*n*.

259. If I deny that surfaces consist of lines, I should also deny that lines consist of points. Now if lines do not consist of points, then the sophism, argued by

Leibniz in the dialogue he wrote for Spinoza (A. E. Taylor, *The Parmenides of Plato*, p. 46*n*) falls. This sophism consists in proving the side and the diagonal of a square to be of equal length, by drawing perpendiculars from the side so as to cut the diagonal; thus there appears to be a point-for-point correspondence between side and diagonal, *i.e.* the numbers of points in both are equal, and the lines are proved equal though known to be unequal. The sophism proceeds on the assumption that lines literally consist of abstract, mathematical points. *Cf.* the difficulties about concentric circles (315*n*).

Berkeley carefully distinguishes mathematical points from sensible points; the former are abstractions or 'nothings'; the latter are the *minima* (see 59*n*) into which, he holds, real lines and surfaces may be resolved; see 132, 253, 267, 447, 516, *TV* 112.

260–261. For the inch representing the mile, see 247*n*, and *cf.* 'There is no such thing as the ten-thousandth part of an inch,' *Princ.* 127 (in the draft of this section—British Museum MS. 39304—Berkeley first wrote 'a thousandth part,' as in this entry). On geometry, see 117*n*; on infinite divisibility, see 11*n*. 'demonstrable' is a slip for 'demonstrate.'

262. Since we do not see distance directly, we cannot see directly the motion of an object moving in the optic axis, *i.e.* straight away from us. Other motions are admitted to be directly visible, but they are heterogeneous, Berkeley insists, from tangible motion, see 28*n* and *TV* 137; for the optic axis, see 400, 443; for motion in the optic axis, see *Maleb.* I ix and diagram *ib.*; for motion including succession, see 167, 184.

263. 264. On incommensurability, here explicitly connected with infinite divisibility (see 11*n*), see 29*n*; on Barrow, see 75*n*; 'indivisibility' is a slip for 'divisibility.'

265. A somewhat tantalizing, yet illuminating entry, in which Berkeley expresses dissatisfaction with his two main sources, Locke and Malebranche, and with his own 'first arguings.' Locke and Malebranche had brought him a certain distance towards immaterialism, but not far enough; they had established the relativity of the secondary qualities (note the marginal letter *P*,

for primary and secondary qualities), but that argument is insufficient, as Berkeley points out in *Princ.* 15.

What, then, were his 'first arguings,' and why does he refer to them here? I should hazard a reply as follows:

These 'arguings' may well have been on paper, as were Locke's 'arguings.' If they were only 'in his head,' he would hardly have made this objective reference to them. I suggest, supporting the suggestion by my note on 224 (see my Introduction, pp. xxxiv*ff.*), that Berkeley had written out a first attempt at an argument for immaterialism, starting from the conception of time as a sensation in the mind, basing his argument largely on the subjectivity of the secondary qualities, and drawing on Locke's theory and on Malebranche's study of perceptual relativity. Dissatisfied with those lines of reasoning and feeling the need for an *ad hoc* study of vision (*Princ.* 43), he began the *CPB* in order to clear up difficult and doubtful points, and in the hope of feeling his way to a really decisive argument against matter. He found that argument, the New Principle, and found it, I think, about the time when he wrote this entry; for the sense of discovery is marked in these pages—see 266, 270, 285, and especially 279. From now on the New Principle becomes the spearhead of his attack on matter, superseding his former argument from primary and secondary qualities. On Malebranche, see 230*n*.

266. 'distrustful,' *prima manu* 'sceptical'; this interesting little reminiscence may be compared with his remark, 'I have always thought and judged for myself' (*Def.* 19). Berkeley has no doubt about the novelty of his doctrines.

267. *Cf.* 276. On Berkeley's theory of *minima* (see 59*n*) a line cannot be bisected with absolute accuracy, if it consists of an odd number of points. The words '*ad infinitum*,' bracketed in the MS., are irrelevant.

268. The 'Pictures,' *i.e.* the retinal images, which, Berkeley holds, are properly tangible, not visible, see 211*n*.

269. Malebranche (see 230*n*) says (I vi) that we do not see the true magnitude of things, but the relation or proportion they bear to our bodies. Berkeley here argues that if the things were outside the mind, we could have no know-

ledge of them at all, not even of their relation to us; for the hypothesis of matter, see 61*n*; on extension, see 18*n*.

270. Obvious truth, *cf.* 'obvious tho' amazing truth' (279), and for the same epithet *Princ.* 6, 149; this truth is Berkeley's New Principle, the *esse est percipi*, his 'intuitive' disproof of matter; on extension, see 18*n*; on thinking substance, see 80*n*.

271. That the mind makes the species or 'sorts' (see 288, 289, 836*n*, *Locke* III iii 13) was one of Berkeley's indirect arguments against matter. 'by turning Men's Eyes into magnifyers or diminishers' means, I think, considering the increase or decrease of apparent size which an alteration of the eye might produce. It might then be argued that since the particular size seen depends on the mind, the general or sort to which that particular size belongs must be no less dependent on the mind. Berkeley may especially have in view those marked qualitative changes (changes in kind or species) to which magnification gives rise, *e.g.* in a drop of water. On magnification, see 94*n*.

272. 273. 277. On Berkeley's doctrine of *minima*, see 59*n*; 272 and 277 are attempts to prove the equality of all *minima visibilia*, using the argument that *minima* have no parts, as in *TV* 80; 273 asks whether these elements of extension are themselves extended. Berkeley does not answer his own question; but the answer required by his teaching would seem to be *Yes*, with the provisos that (1) the extension of the *minimum visibile* differs in kind from that of the *minimum tangibile*, (2) both types of extension are sensible, not material.

274. 275. The pictures are the retinal images, on which see 211*n*.

276. For the problem of bisection, see 267*n*.

278. For 'inverting perspectives,' see 148*n*; on the inverted retinal image, see 102*n*.

279. This entry has an intimate personal quality, and, like others in this part of the *CPB*, is marked by a sense of discovery; for about this time, probably,

Berkeley came on his New Principle, the *esse est percipi*; this suggestion is confirmed by the words which Berkeley wrote at the end of the entry, and erased. On 'obvious truth,' see 270*n*; 'stupid inadvertency,' *cf.* 'the stupidity and inattention of men,' *Princ.* 149, where the divine omnipresence, the necessary background of the New Principle, is spoken of as a truth 'near and obvious.' In the erasure the words 'our' and 'think' are not quite certain.

280. These are alternative forms of the New Principle, all yielding the conclusion that there is no matter. These arguments are formally set out as a 'demonstration' in 378. On simple and complex ideas, see 53*n*; on 'thoughts,' see 153*n*.

281. Berkeley is considering the orthodoxy of his views; for his concern about arguments from scripture, see 404–5, 686, 720, *Princ.* 82, *Rand.* pp. 70, 83.

Malebranche taught that light and colours are 'modifications of the soul'; his views were widely shared in England; the subjectivity of secondary qualities in its mild Lockian form was freely taught by orthodox divines. Archbishop King in his famous sermon on Predestination (15th May 1709) says, 'I think it is agreed by most that write of Natural Philosophy that light and colours are nothing but the effects of certain bodies and motions on our sense of seeing, and there are no such things at all in nature, but only in our minds.'

282. For the development of Berkeley's views on the existence of body unperceived, see notes on 41 and 52; on 'thoughts,' see 153*n*. This entry belongs to the early stage, as is shown by the erasure of 'really.'

For 'dei' other editors read 'rei'; the word is not very legible, but *rei* seems to have no meaning in the context, whereas *dei* is apt; the many powers in things which, for Locke, are causes of secondary ideas, are, for Berkeley, manifestations of the one, universal power of God.

283. 284. Studies in the apparent magnitude of plane surfaces; for 'successive, curious inspection' and the two kinds of visible extension, see 400*n*.

285. Berkeley's Principle is here so named for the first time. Malebranche (VI ii 1) holds out the prospect of finding 'an infallible principle' to those

who follow his rules of method; Berkeley praises those rules highly in his *De Ludo Algebraico*; they may, or may not, have influenced his work; but it is certain that he regarded his New Principle as a decisive discovery. It is the climax of notebook *B* and the starting-point of *A*; it is named in 291, 304, 402, 407, 410–11, and it is the 'obvious tho' amazing truth' of 270, 279–80; it is set forth with a 'demonstration' in 378–80, being there formulated in the words 'that neither our Ideas nor anything like our ideas can possibly be in an unperceiving thing.' The Principle is Berkeley's direct disproof of matter from the nature of existence, the *esse est percipi*, and it is by him contrasted with his 'first arguings' (265).

'Ignorance' means either Socratic ignorance, or native common-sense as opposed to 'learned dust'; *cf.* 405, *Princ.* Introd. 17. Hecht misunderstands this entry, misled, no doubt, by Lorenz's conjecture 'disaver' for 'discover'; the MS. has 'discover.' Berkeley is not charging his opponents with ignorance, but is claiming it for himself, as a naïve realist will take a pride in his naïveté, or like the Baconian seeking entrance into the kingdom of man 'as a little child' (*Nov. Org.* I 68).

286. On thoughts, see 153*n*; on soul or mind, see 14*n*. 'y^{t} is all a case,' *i.e.* both types of thoughts come under the New Principle.

287. 288. 288a. 289. 290. A group which summarizes the results of his study of extension (see 18*n*): (1) extension is composed of sensible *minima* (see 59*n*), which imply a perceiving substance; (2) there is no extension apart from sensible quality, *e.g.* colour, which implies relation to the mind, *cf. Princ.* 10—this 'great argument' (288a) subsequently becomes of secondary importance; (3) extended things have their sorts, which are the work of the mind—this argument later is dropped. The *Draft Introduction* had a paragraph on the sorts (*Fraser* III pp. 365–6), which has completely disappeared in the revised Introduction; (4) if there is external space, there is infinite space, a conception which implies either extended Deity, or an anti-God, see *Princ.* 117. From 288 we see that at this stage Berkeley held the intermittent existence of sensible things, see 52*n*. On the sorts, see 836, *Locke* III iii 13; on God, see 107*n*; on infinite space, see 135*n*; on Malebranche, see 230*n*, 265; on the hypothesis of matter, see 61*n*; on substance, see 80*n*.

291. Arguments *ad absurdum* for the Principle (see 285*n*) are implied in *Princ.* 3 ; *e.g.* the unsmelled smell.

292. The finiteness of our minds was, for Berkeley, an ' excuse ' with which geometers and natural philosophers cloaked the contradictions in their theories, see 323, 350, 350a, 747, 859–60. In the *Draft Introduction* (note the marginal letter *I*) the three opening paragraphs (*Fraser* III pp. 357–8) attack this ' excuse,' the passage being divided later between Introd. 2, 3, and *Princ.* 101. ' Geometers,' *e.g.* Keill and Cheyne, both of whom have recourse to the ' excuse.'

293. 293a. Creation and perception were connected in Berkeley's mind (see 60*n*) ; he saw that the objection, Where on your theory were created things during the Mosaic ' days ' prior to the creation of man ? is parallel to the objection, Where are my books when I am out of my study ?

293a should not be taken as Berkeley's final account of the perceivable (see notes on 41 and 52), but it agrees with *Princ.* 3 in holding that the existence of the table which I am not seeing means that ' if I was in my study I might perceive it ' ; the passage from the *Principles* adds, however, the important words, ' or that some other spirit actually does perceive it.' That God perceives things when we do not is the keystone of Berkeley's full, final theory of the perceivable, as it appears in 802 and *Princ.* 45–8 ; on ' thoughts,' see 153*n*.

294. This query is answered in the negative by Locke (I iv 20), by Malebranche (I xiii), and by Clarke (*Demonstration of the Being and Attributes of God*, Prop. X). On the blind man of the Molyneux Problem, see 27*n*.

295. The third ' demonstration ' of the heterogeneity of sight and touch, *TV* 131, *cf.* above 28*n* ; on minimal points, see 59*n* ; on extension, see 18*n*.

296. 296a. Molyneux (*Dioptrics*, pp. 103–4), states this problem and leaves it to others to determine. Berkeley has not, I think, recorded his proposed method for solving it. *V.S.* is the visual sphere (see 97*n*) ; *m.v.* is the *minimum visibile* (see 59*n*). From thirty seconds to a minute is the size assigned by Locke (II xv 9) to his ' sensible point.' The *verso* addition, which was not noticed by Fraser or Johnston, contains part of Berkeley's own explanation of

judgements of magnitude (see *TV* 56). On near vision, see *TV* 3*ff.*; on the crystalline and fund, see 210*n* and *TV* 34.

297. On this distinction, see 87*n*.

298. The same charge is made against Hobbes and Spinoza, 825, 827. Locke, More, and Raphson lay themselves open to the charge by their opposition to inextensionism, the doctrine of those who hold that there is no extension in addition to matter.

Locke in II xiii 27 and xv 2–4 has guarded references to the divine immensity, and Query IX (see below, p. 473), 'God space . . . ,' shows that Berkeley had noticed these passages.

Henry More (1614–1687) Cambridge Platonist, author of *Encheiridion Metaphysicum* (1671), maintained against Descartes the existence of real and infinite space as a substance distinct from matter.

Joseph Raphson, F.R.S., in his *De Spatio Reali seu Ente Infinito* (1697, chap. V) virtually deifies space, calling it 'actus purus, incorporeum, immutabile, aeternum, omni-continens, omnipenetrans, attributum (*viz.* immensitas) primae causae.' Raphson is named also in 827, and is referred to in Berkeley's letter to Johnson of 24th March 1730 (*Fraser* II p. 19), as a mathematician who 'pretends to find out fifteen of the incommunicable attributes of God in space.' On powers, see notes on 41 and 52.

299. This entry opposes the doctrine that ideas are *like* matter (see 46*n*), and corresponds fairly closely with *Princ.* 8; on 'thought' see 153*n*; 'Contradiction,' *cf.* 573, 579, *Princ.* 24, 54; on extension, see 18*n*.

300. *Cf. Draft Introduction* (*Fraser* III p. 383), 'I shall throughout endeavour to express myself in the clearest, plainest, and most familiar manner, abstaining from [all flourish and pomp of words, *prima manu*] . . .' Berkeley well describes his own clear style, modelled perhaps on Locke's; for his care about his language, see 209*n*. 'Lofty & Platonic,' *e.g.* More and Norris. Johnston says, 'Berkeley himself was later in *Siris* to use "the lofty and Platonic strain."' That comment might be challenged; for the style of *Siris* is almost entirely plain and level even when lofty, Platonic things are under discussion.

301. Matter, as non-percipient, cannot be the substance of ideas; for perception as passive reception, see 756. Berkeley's full theory stresses the activity of percipient mind and its distinctness from passive ideas; see 672a, 673, *Princ.* 2, 89.

302. 302a. 303. On the problem of the horizontal moon, see 125*n*; dimness due to the atmosphere is Berkeley's main explanation; but he gives subsidiary explanations, *e.g.* the turn of the eye, straining, upper and lower situation (see *TV* 77), all of which in particular cases may affect our judgements of distance, and so of magnitude. *TV* 71 mentions the magnifying effect of mist, but not of dusk; these cases are the same in principle as that of the horizontal moon.

304. 305. The reverse of the Principle (see 285*n*) is that things have an existence outside the mind, like Locke's material world; the sceptical tendencies of that doctrine are obvious. Aware that he himself might be charged with scepticism (see 79*n*) Berkeley adds an assertion of his belief in reality and the course of nature (see 52*n*), *i.e.* in a world not produced by the human mind, nor dependent thereon for its conservation and character.

306. 308. 309. Mathematical problems bearing on the infinite divisibility (see 11*n*); surds, *cf.* 469, 482; doubling the cube—take a cube with side of length x, where x is a rational number; its volume is x^3. Take a cube of twice its volume, $2x^3$; the length of the side of this new cube is $\sqrt[3]{2x^3}$, *i.e.* $x\sqrt[3]{2}$ which is a surd or incommensurable number.

'Angles of Contact,' Berkeley's point is that we cannot speak of *the* angle between a curve and a straight line, because by its very nature a curve is continually changing its direction; see 168*n*, 381.

Charles Hayes (1678–1760), author of *Treatise of Fluxions* (1704), 'the first English work explaining Newton's method of infinitesimals' (*Dict. Nat. Biogr.*).

John Keill, F.R.S. (1671–1721) lectured on physics and geometry at Oxford, and later became Professor of Astronomy; he was the 'first who taught natural philosophy by experiments in a mathematical manner' (quoted *Dict. Nat. Biogr.*). He wrote *An Examination of Dr. Burnet's Theory of the Earth* (1698), *Introductio ad Veram Physicam* (1702), and several papers on fluxions in *Philosophical Transactions*. He drew up for the Royal Society the

Commercium Epistolicum, which claimed priority for Newton against Leibniz in the discovery of the calculus. Berkeley has in mind *Lectiones* IV, V of the *Introductio*.

307. This entry is on the *verso*, but is not a comment on a *recto* entry. The test of the blind man (see 27*n*) is an attempt to isolate the immediate data of sight; Berkeley applies it in each of the three main divisions of the *Theory of Vision, viz.* to distance (41*ff.*), to magnitude (79), to situation (92*ff.*) Here, as shown by the marginal sign, it has special reference to situation and the problem of the inverted retinal image (see 102*n*).

310. *E.g.* St. Patrick's exposition of Trinitarianism, in the legend, by aid of the shamrock leaf; on God, see 107*n*.

311. Berkeley discusses the variation of size with distance in *TV* 44; he does not rest his immaterialism on the variation of the primary qualities, and in *Princ.* 15 he points out the limitations of 'this method of arguing [which] does not so much prove that there is no extension or colour in an outward object, as that we do not know by sense which is the true extension or colour of the object.' His point here is that *all* our judgements of size, both of 'distant' objects and those 'near us' are determined by human use and convenience.

312. Berkeley answers objections to immaterialism in *Princ.* 34–84, using these principles, 1, 2, and 4 in sections 34, 62, and 61 respectively. The fourth principle is used again in the case of identity in *Dials.* p. 469, and it recurs almost *verbatim* in Berkeley's letter to Johnson of 25th November 1729 (*Fraser* II p. 17), where he speaks of a theological consideration as 'beside the question; for such I hold all points to be which bear equally hard on both sides of it.' The third principle combines Locke's two principles, (*a*) no knowledge without ideas, and (*b*) all significant words stand for ideas. Berkeley at first held them both, and sets them forth at the head of his formal 'demonstration' (378, where see note), but he subsequently abandoned both; see 178*n*, 730. On the reality of body, see 52*n*; on the laws and the course of nature, see 144*n* and 305.

313. *ἀκρίβεια*, accuracy, or exactness, *cf.* 330, 449; Berkeley claimed

demonstration for his doctrines, but he opposed the mathematicians' claim to accuracy; partly on general grounds, for 'It is beneath the dignity of the mind to affect an exactness . . .' (*Princ.* 109); and in particular because his doctrine of sensible points required him to neglect very small differences, *e.g.* in bisecting lines consisting of an odd number of points, or in squaring the circle (see 249*n*). *N.B.* 'Darling of the Age'; *cf. Mol.*, Adm. to the Reader, where it is said that dioptrics 'cannot be delivered with that *ἀκρίβεια geometrica*' because rays of light are material lines and glasses have thickness. In the *Analyst* (19) Berkeley makes the point that the doctrine of infinitesimals compels mathematicians to neglect very small differences, and therefore to forgo their boasted *ἀκρίβεια*.

314. On infinite divisibility, see 11*n*; on extension, see 18*n*.

315. The 'Difficulties about Concentric Circles' are set forth by Barrow (*Math. Lect.* IX) as an argument against indivisible points and for infinite divisibility. They are considered at length by Bayle in his article *Zeno*. If we consider circles as literally composed of indivisible points (*ex hypothesi* of equal 'magnitude'), and then construct a geometrical figure showing a one-one correspondence between the points of two concentric circles, we reach the absurdity that concentric circles are equal. *Cf.* the sophism of the side and the diagonal (259*n*).

Concentric circles are mentioned also in 122; but as explained in my note there, the two entries are dealing with different topics. The combination XM in the margin is unusual. The X denotes a general reference to mathematics; the M narrows down the reference to matter.

316. This is the well-known *scholium* on absolute and relative motion, see 30*n*. The 'Mr' is curious, for Newton was knighted on 15th April 1705 (Berkeley gives him his title in 374 and in his essay *Of infinites*, *c.* 1706); it should not, however, be regarded as evidence that the entry was written before that date. The evidence to the contrary is overwhelming (see my Introduction, p. xxviii); and as one would expect, the notes not being intended for publication, Berkeley is not careful in such details. Indeed he usually writes 'Newton.'

317. Berkeley is not a sensationalist, for he believed in reason and spirit; but he is far from being, as is generally supposed, against the senses; on the

contrary, he gives them 'all the stress and assurance imaginable,' *Princ.* 40. In the *CPB* he teaches that it is foolish to despise them, 317, 373, 539; that sense must be used about the sensibles, 466; that without sensation there is no knowledge, 539, 779; he places certainty in the senses, 731a, 740, recalls men to commonsense, 751, and vindicates the senses against Descartes' teaching, 794. If mathematicians would trust their senses and would take sensible things as wholly sensible, they would reject, he held, the doctrine of infinite divisibility, 'the source from whence do spring all those amusing geometrical paradoxes which have such a direct repugnancy to the plain commonsense of mankind.' (*Princ.* 123).

318. Almost certainly one entry; other editors print as two. Johnston's text is seriously at fault here; for he reads 'It is not' for 'is it not' and with Fraser he erroneously inserts 'abstract' before 'general ideas.' Curiously, both he and Fraser make the same erroneous insertion again in 497, 555, 591, 666, and they both erroneously insert 'concrete' in 497.

This is one of the first entries to attack general ideas, more precisely styled 'abstract general ideas,' and usually abbreviated to 'abstract ideas.' Berkeley here attacks them on the ground that all ideas are from without, and are particulars; at the same time he concedes, as he always did from the very first (see *Princ.* Introd. 10), the mind's power of abstracting in the sense of 'considering asunder.'

The source of Berkeley's doctrine of abstraction cannot be determined precisely; Browne, *The Procedure, Extent and Limits of Human Understanding* (1728) has a chapter on abstraction (pp. 186*ff.*) which has several points in common with Berkeley's doctrine. He may have taken them from Berkeley, but it is quite possible that Berkeley learned them from him, for he was Provost when Berkeley was an undergraduate. Bacon (see 564), and Hobbes, and Malebranche had attacked vigorously certain types of abstraction, and no doubt they influenced Berkeley, and put him on his guard against abuses of abstraction; but the *CPB* shows that there were as well two specific lines of approach to his doctrine, *viz.* simple ideas and mathematical problems; 53a clearly connects it with Locke's doctrine of simple ideas (see note there), and 85 and 238 (on abstract lengths, points, and circles) speak of mathematical abstractions, and Locke's 'absurd triangle' (see 687*n*) eventually became the focus of his attack, his 'killing blow.'

The second notebook (*A*) contains many references to the doctrine, *viz.* 401, 496, 497, 524, 552, 561, 564, 566, 586, 591, 594, 602, 666, 687, 688, 703, 727, 772, 779, 809, 811, 865, 867, 871, 873 ; and in that series several close parallels with his published works may be found. It seems that when he began to write the *CPB* Berkeley had only vague views on abstraction, or none at all ; but certainly before he finished it his doctrine had taken full and final shape. The attack on abstract ideas makes a brief, unheralded appearance in *TV* 122–5, as if it had only recently been reached ; it monopolizes the Introduction to the *Principles*, and throughout the whole series of Berkeley's publications it dominates his epistemology, remaining unwithdrawn and in full force to the end of his life ; see my *Berkeley and Malebranche*, chaps. vii., viii., and my article in *Mind*, vol. xlvi, N.S., No. 181, on 'The Unity of the Berkeleian Philosophy,' p. 51.

All ideas *come* from without, *i.e.* ideas of sense ; quâ ideas, they are in the mind, but their source is external to man, so *Princ.* 29, 90 ; all ideas particular, see 497, 666, *Princ.* Introd. 15, Locke, III iii 1 ; on colour and extension, see 85*n*.

319. On the distinction between a mathematical and a sensible termination, see 31*n*. Locke (II xvii 14) writes, 'he that perceives the end of his pen is black or white, will be apt to think that the end is something more than a pure negation.' Locke's argument 'concludes nothing here,' because his pen is not 'a mathematical line.'

320. On geometers, see 117*n* ; Keill (*e.g. Introductio*, p. 20) often attacks the '*ἀγεωμετροι* philosophers' ; on the definition of extension, see *Locke* II xiii 15, and *cf.* 44*n* and 164*n*.

321. 'We regard the objects that environ us in proportion as they are adapted to benefit or injure our own bodies, and thereby produce in our minds the sensations of pleasure or pain' (*TV* 59). *Cf. Maleb.* I vi and x ; on *minima*, see 59*n*.

322. Keill (see 308*n*) in his *Introductio*, p. 33, tries to answer the atomist's objection that 'if all quantity is divisible *in infinitum*, every smallest part will equal the greatest' ; see 11*n*.

323. For this 'excuse' see 292*n*; Johnston reads 'infinites' and explains as infinitesimals. As a reading his is possible, but it is inferior to 'infinity.' The non-comprehension of infinity was a commonplace with the physicists of the day (*e.g.* Cheyne), and is referred to repeatedly in the *CPB*, and is discussed in *Princ.* Introd. 2.

324. *M* is apparently 'moment,' Newton's term for differential; see 333, 389, *Anal.* 4, *Def.* 28; *dd* would then be differential of the second order, see *Anal.* 8; on disregarding small quantities, see *Anal.* 23. On magnification, see 94*n*.

325. If you admit that size and number are the work of the mind, you must also admit, says Berkeley, that there is no matter; for matter *ex hypothesi* being outside the mind, could have neither size nor number of points, and would therefore not be matter. *Cf.* 40*n*; on the subjectivity of number, see 104*n*; on extension, see 18*n*.

326. The same passage in Locke on idea, quality, and power, is referred to in 112, where see note.

327. This comparison is developed in 409, 449, 492, 642.

328. *I.e.* extension (see 18*n*) is an abstraction from the concrete mass of visible and tangible sense-data; see 85*n*.

329. Berkeley claims to have simplified mathematics, see 385, 414, *TV* 160, *Princ.* 123, 134; for the scale *cf.* 332 and *Mol.* p. 19, 'this is easily done by scale and compass.' A problem of sub-tangent and abscisse is discussed in *Anal.* 21.

330. On mathematical accuracy, see 313*n*. If the accuracy be confined to the conceptions of the mathematicians, *e.g.* in the niceties of the calculus, and if nothing objective correspond to those conceptions, then it is labour lost, argues Berkeley, to strive for accuracy.

331. 'As oft as you talk of finite quantities inconsiderable in practice, Sir Isaac disowns your apology; *Cave*, saith he, *intellexeris finitas*' (*Def.* 26).

Newton is inconsistent, Berkeley argues (*ib.* 25), in falling back on the method of approximations in practice, while claiming rigorous accuracy for his method of fluxions, and laying down that *in rebus mathematicis errores quam minimi non sunt contemnendi.*

332. Probably some concrete problem involving a mathematical progression is in Berkeley's mind, and he suggests solving it by use of the scale, see 329*n*.

333. For Newton infinitesimals were velocities of nascent or evanescent increments, hence called fluxions (see 168*n*) ; for Leibniz they were differences, *i.e.* infinitely small increments or decrements. Berkeley rejects both conceptions as involving quantities less than the *minimum sensibile*, and therefore without the mind ; see his *Of Infinites*, *Princ.* 132, and *Anal.* 3–6, where both theories are considered. On *M*, see 324*n*.

334. ' hang together,' part of the thesis of the *Analyst* (20*ff.*) is to show how, by a compensation of errors, mathematicians ' deduce true propositions from false principles.' Berkeley complains of ' that nice and extream subtilty, which renders the study of *mathematics* so very difficult and tedious,' *Princ.* 123 ; on Barrow, see 75*n* (the reference is to his *Lect. Math.* V).

335. 336. Mathematics are made easier (see 329*n*), Berkeley holds, if we are content with *approximate* correctness (which is all that we can obtain), and do not insist on absolutely rigorous proofs. On certainty and demonstration in ethics, see notes on 163 and 669.

337. 338. The opening of the attack on infinitesimals as ' nothings,' and on mathematicians as ' nihilarians,' *i.e.* supporters of the infinitely divisible mathematical point, which, Berkeley argues, is a ' nothing ' ; he sets in contrast to it his own indivisible, sensible point in 438–9 ; see also 343–5, 372, 384, 394, 399, 449, 462–4, 471, 488, 633, *Princ.* 130, and *Anal.* 35 where he calls evanescent increments ' ghosts of departed quantities.' In his *Of Infinites* he appeals to Wallis's *Arithmetic of Infinites* in proof ' that an infinitesimal even of the first degree is merely nothing.' ' begets a Contradiction,' such as an ' Unperceivable perception ' (347), or a *minimum visibile* composed of invisibles (464).

339. Creation (see 60*n*) is 'when things, before imperceptible to creatures, are, by a decree of God, perceptible to them' (*Dials.*, p. 472).

340. A departure from the received view of the constant ratio between circumference and diameter, *cf.* 457, 481; the departure is required by Berkeley's method of rectifying particular circles (see 245*n*).

341. 341a. 342. 342a. 343. After an argument against infinite divisibility which agrees closely with *Princ.* 126–8 (see notes on 11, 247, 260) Berkeley summarizes the case which occupies so much of the notebook *B*. The infinite divisibility involves (1) unperceived existence, (2) the real existence of abstract lines, etc., see 21*n*, (3) a unit which is no unit, *viz.* a divisible *minimum sensibile*. This third argument works round to the first, as is shown in 343; for ultimately Berkeley's opposition to infinite divisibility depends on his opposition to unperceived existence and the 'something we know not what.'

344. 345. The *signum* is the mathematicians' point (337*n*), which Berkeley compares with his own sensible *minimum* (see 59*n*), finding the latter much easier to conceive.

346. Bonaventura Cavalieri (1598–1647), Professor of Mathematics at Bologna, wrote *Geometria Indivisibilibus Continuorum nova quadam ratione Promota* (1635) and *Exercitationes Geometricae Sex* (1647). In the latter work he expounds his methods, prior and posterior, and defends his geometry of indivisibles from the attacks of Guldinus. He imagines the continuum to be composed of an infinite number of ultimate elements or molecules, which he calls indivisibles, and he is generally thought to have held that bodies are composed of an infinity of juxtaposed surfaces and surfaces of lines. Berkeley agreed with Cavalieri as to the existence of indivisibles, but differed from him as to the number of indivisibles in a finite line. Berkeley held that the number is finite, which apparently Cavalieri denied.

347. Such as matter, or an infinitely divisible finite line, see 337*n*.

348. On Le Clerc and his doctrine of the divine immensity, see 177a *n*.

349. Berkeley was a keen controversialist; some sixteen objections are formally stated and answered in *Princ.* 34–84.

350. 350a. Berkeley distinguishes the status of Trinitarian dogma (see 310 and 584) from that of transubstantiation (*cf.* 720, *Princ.* 124); the former rests on implicit faith, the latter on the 'excuse'—the finiteness of our minds—see 292*n*.

351–358 are duplicated in the other notebook as follows:

351	corresponds to	415
352	,,	416
353	,,	420
354 (355)	,,	421
356	,,	422
357	,,	423
358	,,	424

This is the only duplication of a series in the *CPB*; whatever its reason, it seems to prove that notebook *A* was begun before notebook *B* was finished, and that for a time the two were filling together. 351–6 have affinities with the essay *Of Infinites*, and possibly Berkeley transferred them into both notebooks from that manuscript.

351. The parallel, 415, puts it more clearly, *viz.* since the integer is supposed infinite, its infinitesimal part may be imagined big, as truly as little. On straining the imagination, see 321, *Anal.* 4. 'intesimals,' a slip for 'infinitesimals.'

352. *Cf.* 416. 'There is in effect no such thing as parts infinitely small, or an infinite number of parts contained in any finite quantity' (*Princ.* 131).

353. *Cf.* 420. Some mathematicians held that a line might be infinitely divisible, and yet might not consist of an infinite number of points. Berkeley takes the commonsense view that a thing consists of those parts into which it can be divided, see 438.

354. 354a. 355. 356. *Cf.* 421 and 422. These two Lockian principles, no knowledge without ideas (IV i 1), and all significant words stand for ideas

(III xi 8), are used in the essay *Of Infinites*. Berkeley here uses the former to prove that we cannot argue about infinitesimals; see 178*n*, 312*n*. He subsequently abandoned both principles.

357. *Cf.* 423 and 610. On the will, see 131*n*; for Berkeley's criticism of Locke's doctrine of uneasiness, see 145*n*.

358. *Cf.* 424. Berkeley was dissatisfied with the Cartesian problematical idealism—see 265*n*. On Malebranche, see 230*n*.

Pierre Bayle (1647–1706), Professor at Rotterdam, pioneer of the French Enlightenment, author of the influential *Dictionnaire Historique et Critique* (1695–7), a copy of which was sold at the auction of the Berkeleys' library (see R. I. Aaron, *Mind* XLI (N.S.), p. 465). Berkeley names Bayle as an atheist in his *Theory of Vision Vindicated* 6, but probably several of the articles in the dictionary, especially those on Pyrrho and Zeno, influenced him when he was writing the *CPB*. Entry 26, for instance, relates the infinite divisibility to external extension exactly as the *Zeno* article does.

Bayle was one of the few who attacked infinite divisibility, and he criticizes severely the principles of mathematics and the doctrine of infinitesimals. Dealing with geometrical problems, such as the ratio of the side to the diagonal of the square, and the equality of concentric circles (see 315*n*), Bayle says that these do not prove the infinite divisibility, but only make it appear 'that extension doth not exist anywhere but in our minds.' In the *Zeno* and *Pyrrho* articles he anticipates Berkeley's assimilation of the primary and secondary qualities; he quotes from Malebranche's 'Illustration' on bodies, which Berkeley knew well (and to which this entry probably refers) remarking, 'I was obliged to prove that there are stronger objections than those of Malebranche' (*Zeno*).

359. *Cf.* 'our senses . . . do not inform us that things exist without the mind,' *Princ.* 18; 'not to be Blam'd'—ironical; perhaps Berkeley is thinking of the 'blame' which Malebranche heaps on the senses.

360. Refers to the squaring of the circle (see 245*n* and 511); a paraboloeid is one of 'Those Curve lines that you can Rectify Geometrically'; a microscope would show that the equality of curve and straight line is only approximate;

and since on his method of sensible points Berkeley can get a straight line equal to the circumference *approximately*, he claims that his squaring of the circle is ' as good and exact as the best.'

Curves are discussed also in 515–6, 519, 527, 575 ; for the attempt to equate right line with curve raises the questions of the nature of equality, of superposition, and of distance (*TV* 155), and supports Berkeley's view, he holds, that equality of lines consists in an equality of the number of sensible points. On the microscope, see 63*n*.

361. Against the argument that gravity is proportional to matter. Berkeley says that this argument is circular, indirectly in *Princ.* 103, directly in *Dials.* p. 460 and in his letter to Johnson of 25th November 1729 (*Fraser* II. pp. 15, 16), and again, with great force, in *Siris* 319, ' the modern demonstration of that tenet . . . a vain circle, concluding in truth no more than this—that gravity is proportionable to weight, that is, to itself.' The entry is repeated in 618. On attraction, see 403, 486. In *Siris* 231–254 Berkeley gives a full discussion of the metaphysical aspect of gravity, relating it to his philosophy of passive idea and active spirit, doing full justice to the greatness of Newton and the relative truth in the Newtonian theory, but remaining firm in his early philosophy.

362. 362a. 363. 363a. A group dealing with extension, colour, and existence in the mind. The last three have the marginal letter *P*, which shows that Berkeley is considering his first argument, from the inseparability of the primary and secondary qualities (265*n*), side by side with his second argument, the New Principle, a ' demonstration ' of which he is on the point of giving, *viz.* 378 ; on Barrow, see 75*n* ; on extension and colour, see notes on 18 and 85, *Princ.* 10, 73.

The question of colour and the mind promotes an important development in Berkeley's thought about the mind—that contained in 362a. At first he was inclined, with Malebranche, to make colour a modification of the mind, and at that stage mind, for him, was more or less passive and identical with its contents ; but in the latter part of the *CPB* and in the *Principles*, as here, he takes mind for ' the Active thing w*ch* I call I, my self.' In this sense mind is entirely distinct from colour and other objects, which exist in the mind by way of idea only, and not by way of mode (*Princ.* 49), and therefore could be spoken of, as here, as without the mind in regard to origin.

The reference to the understanding, which except for this *verso* entry is not mentioned in notebook *B*, marks the entry as transitional. The understanding is studied closely in the latter part of notebook *A*. Distinguished from the mind in this entry, the understanding is joined to the will and identified with the mind in 713. One with its ideas and therefore passive in 587, 614, 681, it becomes an aspect of the active spirit in 848, 854, and is distinguished from its objects. It is mentioned in a general way in 544, 579, 656, 665, and in connection with error in 816. But Berkeley studied it chiefly in connection with the will. At first understanding and will differ *toto coelo*, 643 ; they are distinct, 681, 708 ; they are united, 614a, 713, 812 (in God), 841–2, 848, *cf.* 820–1 ; they are identical, 854 ; and, finally, 871, they are nothing at all, because they are abstract ideas. These changes are not so violent and arbitrary as they appear at first sight ; they are for the most part changes of terminology, consequent on the rise to prominence in Berkeley's mind of the sharp contrast between active and passive, and the passing of his early panpsychism into the dualism of the *Principles*, with its ultimate distinction between spirit and idea.

364–376. These entries occupy a pair of pages facing each other ; Johnston assumes that Berkeley wrote one or two entries on the *verso* page and then one or two on the page opposite, and he numbers accordingly ; but 365 with its important *verso* comment 365a (the two are connected by asterisks) proves that Berkeley followed his usual custom of filling the *recto* and leaving the *verso* blank for subsequent comments, and that later he found that he needed the *verso* space for a continuation of his attack on mathematicians. I have numbered accordingly.

364. This is one of the ' amusing geometrical paradoxes ' (*Princ.* 123) which follow from the infinite divisibility (see 11*n*) ; on Keill, see 308*n* ; the reference is to his *Introductio*, p. 47*ff*.

365. 365a. Berkeley's earlier and later accounts of extension (see 18*n*) ; the two are not necessarily inconsistent ; for he believed in visible and tangible extension, composed of visible and tangible points, even after he had rejected abstract extension. On length without breadth, see 21*n* ; on minimal points, see 59*n* ; on abstraction, see 318*n*.

366. Probably a reference to the Barrovian case (*TV* 29*ff.*) in which, Berkeley argues, geometrical explanations of vision break down; on focal length, see *TV* 40; on glasses, see 63*n*.

367. George Cheyne, F.R.S. (1671–1743), a learned London doctor, wrote *Fluxionum Methodus Inversa* (1703) and *Philosophical Principles of Natural Religion* (1705). Berkeley refers to the former work in 459 and in his essay *Of Infinites*. Cheyne lays much stress on the infinite divisibility, and in the physiological part of the latter work he repeatedly mentions 'vessels'—apparently a general term for veins, arteries, etc.—*e.g.* lacteal vessels, lymphatic vessels, capillary vessels, blood vessels. I suggest therefore that this puzzling little entry is meant as a *reductio ad absurdum* of infinite divisibility; Berkeley is arguing, half in jest, that if there are material vessels, there must be an infinite number of them in the human body.

The entry is duplicated in 387; the duplication, whatever its reason, helps to refute Johnston's pointless transposition of these concluding pages of notebook *B* to the end of notebook *A*; for by so doing he is compelled to number these duplicates 388 and 931, thus separating by half the length of the *CPB* two entries which in the MS. are only two pages apart.

368. 370. 371. 372. 373. 374. 375. 376. A series of rather irresponsible remarks about mathematicians; with these connect 381–6 and 392–5. One naturally asks why Berkeley, a trained student of mathematics, whose first publication was a work on mathematics, who speaks in the Preface of that work of 'suavissimum matheseos studium,' came to speak of mathematicians in these unflattering terms. The answer is that the mathematicians he read, Barrow, Keill, Hayes, Cheyne, Raphson, and Newton, were more or less identified with one or other of certain tenets to which he strongly objected—materialism, extensionism, abstract ideas, infinite divisibility, and irreligion. In addition Berkeley thought that mathematics was showing a bias against sense and common sense, wasting time on trifles, encouraging paradoxes, and supporting perverse explanations of vision ('What a noble piece of geometry is manifested in the fabrick of the eye, and the manner of vision!' Cheyne, *Philos. Princ. of Natural Religion*, p. 260).

Nor was Berkeley singular in holding such views. Bayle (*Zeno*) attacks mathematicians, and Le Clerc's review (*Bibliothèque Choisie*, vol. 22, p. 88)

of Berkeley's *Theory of Vision* speaks in approval of its attack on mathematics. On nihilarians, see 337*n*; on the geometry of indivisibles, see 346*n*; on truth and certainty, see notes on 163 and 554, and *Locke* IV vi.

'Praeclarum ingenium non potest esse magnus mathematicus'—*Scaligerana* (Cologne, 1695), p. 95. Joseph Scaliger (1540–1609), French scholar and chronologist, son of Julius Caesar Scaliger, is speaking in the context of Christopher Clavius, a Jesuit geometrician. Clavius was employed by Gregory XIII on the reformation of the Calendar. Scaliger's chief works were *De Emendatione Temporum* (1583) and *Thesaurus Temporum* (1606). In his edition of Manilius' *Astronomicon* (1579) he rails frequently against the ignorance and presumption of contemporary mathematicians with regard to ancient astronomy and chronology. 'Sir Isaac,' *cf.* 316*n* and 383.

369. For Berkeley's technical use of *thing* and *idea*, see 644, 685, 689, 757, 807–8, 872. There are, for him, two entirely distinct types of being, thinking things and things thought; he usually calls them spirits and ideas (*Princ.* 89). He has three chief concerns about this technique. (1) He must justify his use of *idea* in place of *thing* for the object of sense. His reasons are that *thing* is too wide (see 644, *Princ.* 39), that *idea* is in vogue, that *idea* preserves the thing's relation to mind, and safeguards immediacy and the distinction between active subject and passive object. (2) To insist that spirits are not ideas and cannot be represented by ideas, see 490*n*, 808. (3) To oppose representationism; if *thing* be used of the object of sense, it is to be used of the object itself, and not of a supposed external archetype thereof. See 115*n*, 689.

377. 378. 378a. 379. 380. The 'demonstration' of the Principle, forecast in 363, and the doctrinal climax of notebook *B*. It consists of nineteen connected propositions, formally stated and numbered by Berkeley; these with the summary (379, 380) occupy two folios (*recto*) of the manuscript, the *verso* being left blank except for 377, an abbreviated statement of the Principle, which heads the first *verso*, and for 378a just beneath it, a note on the use to be made of the demonstration.

The nineteen propositions fall into three groups, 1–9, 10–15, 16–19, which I will call *A*, *B*, and *C*, respectively. *A* proves that no idea is in matter; *B* and *C* prove in two ways that nothing like an idea is in matter.

A (1–9) proceeds as follows; all words signify ideas, and all knowledge

is about ideas; ideas from without are sensations; ideas from within are thoughts; neither sensations nor thoughts are in matter; therefore no idea is in matter. This argument corresponds in outline to that of *Princ.* 1–7; the first two propositions, however, represent positions abandoned by Berkeley before he published the *Principles*; on the first (all words stand for ideas), see 178*n* and 356*n*; on the second (all knowledge is about ideas), see *Princ.* 135*ff.*, where knowledge without ideas (except 'in a large sense') is asserted with regard to spirits, *cf.* 312*n*.

B (10–15) argues that whatever has ideas must perceive them, perception being passive reception of ideas; that ideas are either simple or compounded of simple ideas; that if there is to be resemblance between two complex ideas, they must have a simple idea of the same sort in common (*cf.* 484, 496). Therefore there is nothing like an idea in matter.

C (16–19) argues that likeness involves comparison, that comparison is viewing two ideas together, and that the mind can compare only its own ideas. Therefore there is nothing like an idea in matter.

The common conclusion of *B* and *C* and the nerve of the argument of *C* appear in *Princ.* 8, and form a standing part of Berkeley's argument for immaterialism; the involved argument of *B*, based on Locke's doctrine of simple ideas (see 53*n*), has disappeared.

Combining the two conclusions, of *A*, and of *B* and *C*, we have the full formulation of the Principle, as given in 379, *viz.* neither our ideas nor anything like them can possibly be in an unperceiving thing, *i.e.* in matter. On demonstration, see 163*n*; on comparison and likeness, see 46*n*; on arguments *a priori* and *a posteriori*, see *Princ.* 21.

381. 382. 383. 383a. 384. 385. 386. Further attacks on mathematicians, see 368*n*; on the definition of angle, see 432*n*; on the angle of contact, see 168*n*; on infinite divisibility, see 11*n*. 'The Algebra of pure intelligences' must mean, I think, the sense symbolism which yields that enlarged capacity of the mind which pure spirits are supposed to possess; *cf. TV* 153. Sir Kenelme Digby speaks of one real moment giving happiness 'multiplied beyond the Arithmetick of intelligences' (*Man's Soul*, 1657, p. 142). Algebra, extravagantly praised in the *De Ludo Algebraico*, is spoken of in more sober terms in the *CPB*, see 697, 758, 767, 770, 880, and is not discussed in the *Principles*. 'Newton's propositions,' *cf.* 374. On Barrow, see 75*n*; in his *Lect. Math.* I

he writes ' from this assertion of the composition out of indivisibles the whole of geometry is altogether subverted and destroyed ; ' but his argument is *ad hominem* and ironical ; for he adds, ' The poles of the world will sooner be removed out of their place, and the fabric of nature destroyed, than the foundations of geometry fail.' On geometry, see 117*n* ; on ' the nothings,' see 337*n* ; on Berkeley's claim to simplify mathematics, see 329*n*.

387. Duplicate of 367, where see note.

388. Newton (*Optics* I p. 90) says, ' the rays to speak properly are not coloured. In them there is nothing else than a certain power and disposition to stir up a sensation of this or that colour.' I have not found the statement which Berkeley here attributes to him.

Malebranche (see 230*n*) discusses the *materia subtilis* of Descartes' vortex theory in VI ii 4 ; see also his *Discourse upon Light and Colours* (Taylor's tr. 2nd ed., 1700), where he says that light and colours consist in the vibrations of pressure produced by the subtle matter on the retina.

389. Jacques de Billy (1602–79), French mathematician ; his chief work was *Nova Geometriae Clavis Algebra* (1643). The only other mathematician of the name mentioned in the *Nouvelle Biographie* is Erar Billy (or Bile) (1610–*c.* 1645), professor of theology and mathematics at Caen.

There is nothing to show whether $\frac{1}{m}$ is an infinitely great or infinitely small quantity. If the stress falls on the ' visible,' then the symbol probably means something infinitely small, and therefore imperceptible ; but if the stress falls on the ' finite,' the symbol means something infinitely great, which the Billys represent by a finite visible line, thereby sliding into the belief in infinite divisibility (see *Princ.* 127).

390. According to Baronius, Marsilius Ficinus (1433–1499) and Michel Mercatius, Italian Platonists, agreed that whichever died first would appear to the other and confirm belief in the future life. One day when Mercatius was engaged in philosophical meditation he heard a galloping horse, and saw a white phantom in broad daylight ; then he heard the voice of Ficinus saying, ' Michel, Michel, it is true.' He sent for news of Ficinus, and learned that he had just died. On Ficinus, see *Siris* 206*ff*.

Berkeley finds the story credible because on his account of time (see 4*n*) the series of ideas is time, and therefore a soul who willed to appear to a friend the moment after death could do so; see his remarks on death and the resurrection which 'follows the next moment to death' in his first and second letters to Johnson (*Fraser* II, pp. 17, 19). The same *motif* probably underlies the question about the thief and paradise; see 127*n*.

391. Reviewing the results of his philosophy. Berkeley repeatedly urges that immaterialism simplifies the tasks of speculation and of the sciences without the loss of any reality (*cf.* 518). *Princ.* 35 does not contain the references to mathematicians, but otherwise it corresponds closely to this entry. 'insensible sensations,' *e.g.* lines without breadth, extensions without colour; on extended deity, see 107*n*; on the reality of body, see 52*n*.

392. 393. 394. 395. Another group of remarks on mathematicians (see 368*n*). The 'we Irishmen,' three (four, including 398) times repeated, is striking, but we need not read a political reference into the words. Berkeley certainly always regarded himself as an Irishman, and Newton was, to him, 'a philosopher of a neighbouring nation' (*Princ.* 110, 1st ed.); but when he writes 'we Irishmen,' he simply means 'we ordinary folk, shrewd judges of fact and commonsense'; the words are not voicing aggressive nationalism, but appealing to fact against fanciful speculations. If an Englishman wrote in a similar diary 'we Englishmen,' his words would simply mean 'the man in the street,' and that is all, I think, that Berkeley meant. On the wall and the fire, see 19*n*; on squaring the circle, see 245*n*; on infinite divisibility, see 11*n*; on the mathematical point as 'nothing,' see 337*n*.

396. 397. 398. A group of entries of biographical interest, wrongly interpreted by commentators, and made into a reason for abandoning the MS. order of this part of the *CPB*.

First, who is 'P'? and what is 'ye treatise'? P is the Earl of Pembroke who was Lord Lieutenant of Ireland from April 1707 to November 1708. Fraser and Hecht agree in this identification; the conclusive reason for it (see my article in *Hermathena*, Vol. XXI [1931] p. 161*n*) is that 'ye treatise' is not one of Berkeley's books, as commentators have assumed, but is Locke's *Essay*, which is dedicated to Pembroke, the dedication opening with the

words, 'This treatise which is grown up under your Lordship's eye.' Berkeley is expressing gratitude to Pembroke for his patronage of Locke's *Essay*, and for an approving word, spoken no doubt at some College meeting, of his own 'harangue,' perhaps his essay on the Cave of Dunmore, or his *Of Infinites*. Berkeley was subsequently to dedicate his own *Principles* to Pembroke, but that treatise could not possibly be said to have grown up under Pembroke's eye (even if any considerable portion of it were written while Pembroke was in Ireland, which is extremely unlikely), for Pembroke was the first man in Ireland, the King's representative, and Berkeley was a very junior Junior Fellow, 'an obscure person, who has not the honour to be known to your Lordship' (*Princ.* Dedication).

Johnston and Rossi explain 'P' as Sir John Percival, afterwards Earl of Egmont, Berkeley's friend and correspondent, to whom the *Theory of Vision* is dedicated; but that Dedication speaks of 'these few months that I have the honour to be known unto you.' Those words published in 1709 would be quite inconsistent with 'that grew up under his Eye'; besides, it is almost certain that the greater part of the *CPB* was written before Berkeley met Percival. Percival, a young Oxford graduate, came over to the south of Ireland in May 1708 (*Rand*, p. 3); I found evidence in the Egmont Papers (*Hist. MSS. Commission*) that he was in Dublin on 19th November of that year, but he was not there much earlier, and this entry must have been written about the early spring of 1708, if my dating of the manuscript is correct (see my Introduction, p. xxviii), and if the manuscript order of the entries was approximately the order of writing.

Johnston and Hecht reject the manuscript order here; they transpose these entries and those that go with them, *viz.* in all 378–399, the contents of the last eight pages of notebook *B*, to the end of the whole work, and print their texts accordingly; they have to suppose that Berkeley left these eight pages blank at first, went ahead and filled notebook *A*, and then, weeks or months later, came back and filled these eight pages. Their argument is very largely conjectural and cannot stand against the positive evidence that these pages were filled, approximately at any rate, in the manuscript order. I have stated that evidence fully above in the Introduction (pp. xx*ff*). Here I will only deal with the one point which at first sight gives a certain plausibility to this conjectural transposition, *viz.* that these pages look like a *finale* to the

whole work, that in 396–8 Berkeley is clearly contemplating publishing a work of his own, and must therefore be presumed to have already done all the preliminary work of the whole *CPB*.

I reply that these entries do not prove that Berkeley was on the eve of publication when he wrote them ; they do not prove that he was contemplating immediate publication. He was certainly letting his mind go ahead to the day when his work would see the light ; but even the ' I Publish not this . . .' (398) may merely be a literary experiment in writing a preface, and the words look like an echo of Locke's Epistle to the Reader, ' I pretend not to publish this Essay. . . .' But, granting for the sake of argument that publication was imminent when these entries were made, do we know that the publication was the publication of the *Principles* ? The answer is, No. The book-to-be might equally well have been the *Theory of Vision* (Johnston on his identification of ' P ' with Percival ought to make it so), or some third work drafted, but never published (see 224*n*). Johnston thinks that the phrase ' ye treatise ' points to the *Principles*, the *Theory of Vision* being an ' Essay ' ; but there is nothing in that argument ; for, as I have shown above, the treatise in question is Locke's and not Berkeley's. There is, therefore, no ground whatever for taking the entries 396–8 as the *finale* of the whole *CPB*, and of course the humdrum 399, which concludes that page and notebook *B*, is a pretty strong indication that no *finale* was in view.

399. ' Nihilarians,' *i.e.* the mathematicians whose point was a ' nothing ' (see 337*n*). Up to the present Berkeley has been hitting out at both materialism and mathematics, but now perhaps he begins to think it imprudent to provoke too many adversaries at once. Certainly by the time he penned 633 he has modified his tone, and while he is still determined to oppose the infinite divisibility and the mathematicians who held it, he will do so ' wth the utmost civility & respect, not to stile them Nihilarians, etc.'

Folio 3. The index of marginal letters. This index on the opening page of notebook *A* is in Berkeley's handwriting ; the page also contains his initials, ' G: B: Coll: Trin: Dub: alum: ' and his son's name (probably signature) ' George Berkeley A.B. ex Aede Xti.'

The dividing line appears to indicate the distinction between the topics of *Principles*, Part I, and those of the other projected part or parts. These letters

are used freely in both notebooks, and one wonders why the index stands here and not at the beginning of notebook *B*. It looks as if the letter-system was first used in notebook *A*, and indexed there, and subsequently was worked back into notebook *B*. There were, I think, two indexing systems which now partly overlap, the marginal signs for notebook *B* and the *Theory of Vision*, and the marginal letters for notebook *A* and the *Principles*. This distinction is not to be pressed in any particular case; for there is plenty of interchange between the two notebooks both of subjects and of signs; but there is certainly far more space given to the topics of the *Theory of Vision* with a freer use of the mathematical signs (especially ×) in notebook *B* than in the other.

Practically every entry has either a marginal letter or a marginal sign; a few have both, but for the most part the sign system and the letter system stand apart.

The following table shows the distribution of letters and signs between the two notebooks:

	Letter or Sign	*Notebook B*	*Notebook A*
I	Introduction	4	59
⊣	Introduction	1	25
M	Matter	62	66
P	Primary and Secondary Qualities	17	18
E	Existence	0	29
T	Time	11	3
S	Soul—Spirit	11	120
~~S~~	? Space	39	0
G	God	4	15
Mo	Moral Philosophy	5	44
N	Natural Philosophy	8	26
×		187	115
+		123	65

There are no entries marked *E* in notebook *B*—a support for the view that Berkeley discovered his New Principle on the meaning of existence while he was writing the first part of the *CPB*. Several entries in *B* marked S have nothing to do with Soul or Spirit. They belong, no doubt, to the group in which S meant Space. (See Introduction, p. xxiii.)

400. The distinction (suggested perhaps in 208) between two kinds of visible extension, vague expansion and clearly defined space, is first drawn in 283–4; the latter kind may be the object of geometry (443), and, containing the idea of succession, is 'of Mathematical Consideration' (460). In *TV* 145 the movements of head and eye, involved in the successive direction of the optic axis, are mentioned as helping to confuse visible and tangible extension.

401. 'No general Ideas' subsequently became 'no abstract ideas,' see 318*n*; Berkeley's criticism of the abstractions of mathematics, lines without breadth, infinitely divisible points, etc. culminated in his attack on Locke's typical abstract idea, his absurd triangle (IV vii 9) 'neither oblique nor rectangle, neither equilateral, equicrural, nor scalenon; but all and none of these at once'; see 687 and *Princ.* Introd. 13. On 'ye Introduction,' see 212*n*.

402. Note the juxtaposition of Berkeley's three main principles at the start of the new notebook, 'No general Ideas' in the previous entry, 'The Principle,' *i.e.* the *esse est percipi* (see 285*n*) in this, and spiritual causation in the next.

Bayle (*Rodon*) says that the divine preservation or conservation, taken as continual creation, was a doctrine very common among Spanish and Irish Schoolmen, who taught that creatures, not having in themselves the cause of their existence, continue to exist only by the co-operation of God's will, which, having created, does not cease to create. This doctrine is Augustinian, and was reaffirmed by Descartes. Berkeley speaks of it sympathetically in *Princ.* 46, but does not endorse it. At any earlier stage he had held, I think, that the objects of our senses pass into nothingness when we are not sensing them; but later he altered his opinion, and decided (*Princ.* 48) that it does *not* follow from his principles 'that bodies are annihilated and created every moment, or exist not at all during the intervals between our perception of them.'

403. Physical causes, as coexisting ideas, are identified with occasions in 754. Berkeley's doctrine of cause, derived mainly from that of Malebranche, appears to have been fixed before he began the *CPB*; it is not much discussed here, but the main tenets, developed in *Princ.* 25–6, 64, are that (1) God is the cause of all natural things, (2) there are no unthinking second causes, (3) an idea, being passive, cannot be a true cause, but may be *called* the cause of another

idea, being related to it as sign to thing signified. These tenets or the makings of them may be found in the entries 433, 461, 485, 499, 780, 831, 850, 855–6. The ordinary usage of the term *cause* is conceded in 504, 562, 783, and reference is made to Spinoza's cause in 827, 831. On attraction, see 361*n* ; coexistence, for Berkeley, designates the field of natural philosophy—see 164, 677, 754, 853 ; he does not mean by it the simultaneous, but the continuous, and he usually thinks of it as a succession, *e.g. Princ.* 26.

404. 405. On scripture, see 281*n* ; we are not to gather that Berkeley seriously doubted the Copernican theory ; he speaks as if he accepted it in *Princ.* 51, *Dials.* p. 456 ; he is in a general way appealing, as he often does, to common-sense against 'learned dust,' see 285*n*, 552, 703, 772, 867, *Princ.* 34, 51, Introd. 10. For his philosophy as truth 'shared between the vulgar and the philosophers,' see *Dials.* p. 484. The term *mob*, derived from *mobile vulgus*, had been vigorously attacked by Swift : 'I have done my utmost for some years past to stop the progress of *Mobb* and *Banter*, but have been plainly borne down by numbers' (*Tatler*, No. 230) ; it was only a recent acquisition, coming into vogue soon after the Restoration.

406. Berkeley is taking the measure of the support and opposition he expects ; for the reception accorded to the *Principles* in London, see *Rand*, p. 80, 'A physician . . . argued you must needs be mad. . . . A Bishop pitied you.' 'Hypothetical Gentlemen,' *i.e.* those who substitute hypotheses for experiment, *cf.* 'speculative gentlemen,' *Draft Introd.* (*Fraser* III, p. 370). 'Experimental Philosophers,' *i.e.* physicists, *cf.* 498. Newton in his *Optics* makes the same contrast, 'My design in this book is not to explain the properties of light by hypotheses, but to propose and prove them by reason and experiments.'

407. Probably read 'Principle' for 'Principles' (Fraser and Johnston) ; on Berkeley's Principle, see 285*n* ; by Newton's Principle is meant his law of gravitation, which, Berkeley repeatedly argues, is a *petitio principii* ; see 361*n* ; on demonstration, see 163*n*.

408. The first entry with the marginal letter *E* (existence) ; that existence means either to perceive or to be perceived is Berkeley's New Principle, dis-

covered apparently in the course of the studies represented in notebook *B*, and used as the starting-point of notebook *A*. Existence is not a simple idea (see 53*n*), again in 670–1, but an abstract idea, coined by the Schools, 552, 725, 772, 811 ; existence is not conceivable without perception, 429, 597, 646, *Princ.* 3 ; but the term need not be restricted to sense-perception, 472–3 ; Berkeley does not take away existence, but declares the meaning of the term, 593 ; he begs his readers to examine for themselves the meaning of the term, 491, 604.

The new view of existence at once brings under discussion the nature of the perceivable and the reality of body, on which see 52*n*.

409. Schoolmen compared with mathematicians, *cf.* 327*n*.

410. 'Intellectual beings,' *i.e.* intelligences, unbodied spirits, beings higher than man, lower than God, *cf.* 663, 723, *TV* 153, *Princ.* 81, *Locke* IV iii 6, 17, 27 ; on the Principle, see 285*n*.

411. An expansion of 304, developed in *Princ.* 92–6 and Introd. 1. On scepticism, see 79*n*. Idolatry is traced to materialism also in 17, where see note.

412. 413. Berkeley is apparently examining the Hebrew and the Greek verbs 'to be' for light on the meaning of existence. היה 'to be,' is by some grammarians connected with חיה, 'to live' ; hence *vixit*. Johnston and Hecht both explain היה as Jehovah ; this is a mistake in grammar and in interpretation ; for the sacred tetragrammaton is יהוה, and Berkeley is very far from identifying God with existence ; besides, if he had had Deity in mind in these entries, he would have marked them *G*, not *E*. On substance, see 80*n*.

414. For Berkeley's claim to have simplified mathematics, see 329*n*.

415–424. This series duplicates 351–358, where see general and particular notes. If the figures 1754 1755 1755 at the head of folio 7 are dates, presumably they were added after Berkeley's death, which occurred in 1753.

417. 418. 419. These are not contained in the other series, but being on infinites they arise out of the context ; they contain several echoes of Berkeley's

essay, *Of Infinites, e.g.* '*quovis dato* [not *lato*] *majus*,' and '*quavis data minor*'; he argues that a line or figure imagined, like one seen, or assigned, or given, is necessarily finite, and therefore is not to be treated as infinite; on the imagination, see 531*n*; on infinite space, see 135*n*.

424a. This entry, the *verso* comment on 424, is not represented in the other series; Berkeley distinguishes his views on the reality of body from the Cartesian idealism, see 52*n* and 265*n*.

425. 426. Euclid is no more infallible than Aristotle; his abstract lines, for instance, suppose existence without the mind (117) and give rise to sophisms (see 259*n*); on demonstration, see 163*n*.

427. 427a. Asserting direct perception; we see the horse itself, not a mental copy of it, as representationists allege. The words '& nothing more' are not said in depreciation of *idea*, but in denial of matter; *i.e.* what we sense *is* the object, the only object, and there is nothing more to it, such as matter. The *verso* puts the same thing in other words, stressing the immediacy of the object, which on that very account Berkeley names *idea*, see *Princ.* 38.

428. On the benefit to geometry, see 207*n*.

429. The first appearance of the Latin form of the Principle, see *Princ.* 3. Note the *verso* addition 'or velle i:e. agere' which, though it adds nothing essential to 'percipere,' is meant to underline the active side of percipience. *Percipere* and *percipi* are, respectively, Berkeley's two 'heterogeneous' heads of reality, active spirit and passive idea. The horse in the stable and the books in the study are his stock examples of the unperceived perceivable, see 52*n*, 472. On existence, see 408*n*.

430. 431. Gravitation, the tides, and crystallization are among the physical phenomena in which Berkeley finds confirmation of his doctrine; see *Princ.* 101*ff*. 'Hyps' is, no doubt, the plural of Hyp, an old abbreviation of hypochondria; see Oxf. Eng. Dict., and *cf.* 'Heav'n send thou hast not got the hyps' (Swift). Hecht translates *Trübsinn*, *i.e.* melancholy. Depression, moods, 'blues,' etc. are still regarded as 'unaccountable things'; they come

and go suddenly, and they are psychological in character as well as physiological. How do they 'confirm' Berkeley's doctrine? Is it because they appear to negate mechanical causation (*cf.* 435)? Or is it because, like dreams, they emphasize the subjective aspect of experience? The latter explanation has the merit of taking 'my Doctrine' in the more pointed way for Berkeley's personal and peculiar doctrine.

432. Ignatius Gaston Pardies (1636–1673), French geometrician, author of *Eléments de Géométrie et de Trigonometrie* (Paris, 1671); the English translation by John Harris, F.R.S., went through several editions. It defines angle as follows: 'When two lines meet in a point, the Aperture, Distance, or Inclination between them is called an angle'; *cf.* 381.

433. Sensible things, for Berkeley, are collections of ideas; ideas are passive, and have no causal power. God (see 107*n*) is therefore the one true cause of natural events (see 403*n*); on powers, see 41*n*.

434. Astronomy is not mentioned elsewhere in the *CPB*; for 'usefull & practical Mathematiques,' see 471, 509, *Princ.* 131.

435. Malebranche deals with memory in II i 5, and rests his explanation on traces in the brain. Locke barely mentions the brain in his vivid account of memory (II x). Berkeley has a short passage on traces in the brain in *Dials.* p. 421, where he shows that the trace theory has to presuppose 'that primary idea or brain itself' which 'being a sensible thing exists only in the mind.'

436. On this difficulty about creation, see 60*n*.

437. 437a. The two kinds of reality again (see 429*n*), spirit and ideas, active and passive. Contrast Berkeley's earlier view, 'Nothing properly but persons *i.e.* conscious things do exist' (24), and note the *verso* addition, which is needed because in the early part of the *CPB* he makes thought passive, see 228*n*.

438. 439. 440. 441. 442. A further discussion of sensible *minima* (see 59*n*) *versus* insensible or mathematical points, 'nothings' as he pleasantly calls them (see 337*n*). He may have had in mind Locke's grain of wheat, divided and

subdivided 'till the parts become insensible' (II viii 9). Berkeley presses his argument both ways; sensible things cannot be made up of matter, and matter cannot be made up of sensible things; abstract extension is an abstract idea (see 318*n*), *i.e.* nothing; and the process we call *abstracting* is simply a considering a particular sensible length, or number of points, apart from its sort, *i.e.* in its representative capacity, *cf. Princ.* Introd. 10.

At this period Berkeley was, no doubt, writing or rewriting the *Theory of Vision*, and here he reminds himself not to speak of the *minimum sensibile* (*m.s.*) until he has made clear the distinction between *visibile* (*m.v.*) and *tangibile* (*m.t.*), see 28*n*. He speaks of *minima* in *TV* 54, 80–83, but says comparatively little about them, considering the amount of attention he devotes to them in the *CPB*. The note on the *verso*, 'this belongs to geometry,' probably refers the entry to the section dealing with the object of geometry (*TV* 149*ff*.). The curious question as to the colour of a *minimum* (*cf.* the question, recently asked, Has an electron a colour?) must be answered in the affirmative; for the *m.v.* is, by definition, 'a proper and immediate object of sight,' see 489, *TV* 81. On extension, see 18*n*.

443. On the two sorts of visible extension and the optic axis, see 400*n*.

444. For Malebranche a pain in the finger is a modification of the soul which men erroneously, by both a natural and a voluntary judgement (Bk. I xiv), locate in the finger. Berkeley rejects this separation; for him finger and its pain go together; for both are in the mind; not that either or both of them are mental, or mental copies of material things, but they are what we see and feel them to be; there is no finger other than the finger we see and touch; there is no pain other than the pain felt; therefore the pain felt must be in the finger which, as perceived, is in my mind.

445. 446. Berkeley considers the term *consist of* in the light of the *esse est percipi*. What is the meaning of saying a line *consists of points*? I can think of the line without ever thinking of its points; therefore, on Berkeley's theory, there should be no points in it. No, replies Berkeley; that interpretation of the Principle ignores the perceivable (see 52*n*); for figures, points, etc., which I *may* perceive in the circle 'are actually in it, *i.e.* are perceivable in it'; see 86*n*.

447. Explained by *TV* 112, where we are told that things can be compared in respect of distance only if they exist after the same manner; we can compare the distance between two visible points, or that between two tangible points, but not that between a visible point and a tangible point. 'intermediate ideas' is apparently not used technically here, as it is in 697–8, 729, *Locke* IV xii 14.

448. 448a. Edmund Halley (1656–1742), F.R.S., Astronomer Royal, Savilian Professor of Geometry at Oxford. Halley is said to be the '*infidel* mathematician' to whom the *Analyst* is addressed; but see Rigaud, *Defence of Halley against the charge of Religious Infidelity* (1844). Query 1 at the end of the *Analyst* asks, Whether the object of geometry be not the proportions of assignable extensions? And whether there be any need of considering quantities either infinitely great or infinitely small?

The erasure and the *verso* comment thereon are proofs of the care Berkeley bestowed on the *CPB*; it was much more to him than a collection of casual jottings; for here, as often elsewhere, he takes the trouble to correct an entry, and even to correct his correction. He made the erasure, I presume, because the words might suggest that his ideas of sense were copies of reality; he was afraid of the term *idea of*, see 115*n*, 660.

449. For the passages in which the comparison between Schoolmen and mathematicians is developed, see 327*n*; 'nothing at all,' apparently a reference to his attack on the mathematical point as a 'nothing,' see 337*n*. 'mean' (Fraser and Johnston) is not in the text.

450. 450a. 451. Motion is among the simple ideas (see 53*n*) in which Locke hoped to find the bases of knowledge; he says little, however, about its simplicity. Berkeley queried its simplicity; motion is definable and therefore complex (Query 14, page 473); it includes succession, 167; it is not perceived at once, 184. His second thoughts here restore it to the category of simple ideas; his third thoughts, on the *verso*, in effect destroy the category; for he refuses to abstract motion from the thing moved, and virtually says that the simple idea of motion is an abstract idea.

Locke discusses scholastic definitions of motion in III iv 8, 9; he offers no formal definition of his own, but he writes, 'motion being nothing but change of distance between any two things' (II xiii 14).

Newton (*Principia*, Schol. ad def. viii) says, 'tempus, spatium, locum et motum ut omnibus notissima non definio'; but a little later he writes, 'Motus absolutus est translatio corporis de loco absoluto in locum absolutum, relativus de relativo in relativum.' Berkeley mentions Newton's two sorts of motion in 30, and discusses them in *Princ.* 111*ff.*

452. From the *Principia*, p. 7; Newton is speaking of pure or absolute space, arguing that its parts are immovable, *cf. Locke* II xiii 13, 14. Berkeley refers to the immovability of Newtonian space in *Princ.* 111; he rejects pure space and absolute space. His apparently inconsequential remark about number means, I think, that the only sense in which the parts of space are immovable is that the number of sensible points in a given line or area remains constant through all local changes. 'sic,' Fraser and Johnston read 'sin.'

453. Descartes' theory of vortices and globules is discussed by Locke, III iv 10, IV ii 11, 12, and by Malebranche in *Recherche*, VI ii 4, and in *Treatise concerning Light and Colours*. Berkeley is apparently debating his question (see 442*n*) whether visible *minima* are coloured. Newton certainly speaks of rays of light as coloured, but when he does so, he says, he is speaking popularly; he holds that in the rays colours are nothing but a disposition to propagate this or that motion to the *sensorium* (*Optics*, Bk. I, p. 90).

454. The marginal sign suggests that Berkeley is considering judgements of distance; the man born blind (see 27*n*), who, not having seen colour, could imagine only a space of touch (see 28*n*) is, for him, proof that our ordinary judgements of distance by vision are not primitive, and do not assure us of the existence of external space (see 18*n*).

455. 456. In both these entries, as in 451 and 452, Berkeley is considering Newton's *Scholium* on Def. viii. In the passage quoted Newton is arguing that relative quantities are not the quantities themselves whose names they bear, but the sensible measures thereof—the measures being commonly used instead of the quantities measured. In the other entry Berkeley is criticizing Newton's experiment of the water in the rotating vessel—see his own *Princ.* 113–4. Newton used the experiment to illustrate his distinction between absolute and relative motion.

457. 458. On squaring the circle (see 245*n*) ; D is the diameter, and P the circumference (periphery) ; on Berkeley's theory there is no fixed number (π) such that for every circle the circumference $= \pi \times$ diameter—see 340 and 481. ' to rectify peripheries ' means to find a straight line equal to the circumference. To square the circle arithmetically means to find its area in terms of the numbers of points it contains, which Berkeley claimed to be able to do in the case of particular circles.

459. Cheyne's argument, referred to in Berkeley's *Of Infinites*, is that abstract geometry depends on the possibility of infinites, great and small ; on Cheyne, see 367*n*.

460. On succession as the basis of Locke's simple ideas, see 53*n* ; on number, see 104*n* ; on time, see 4*n* ; on the two kinds of visible extension, see 400*n*.

461. Locke's simple idea of power (see notes on 41 and 52) is resolved into the relation of cause and effect (see 403*n*). Berkeley here adopts the occasionalist theory of causation with regard to the animate as well as the inanimate cause, identifying physical cause with pure sequence. On relation, see 540*n*.

462. 463. On Barrow, see 75*n*. This passage from his *Lectiones Acad. Cantab.* I 16 (delivered 1665, pub. 1684 ; Lect. IX, p. 153 in Kirkby's tr.) uses several mathematical arguments against indivisibles including the following. Take a circle with a radius in length 3 points ; in this circle by using the proposition of Archimedes we get the absurdity of an arc equal to its chord. Now the circumference of this circle equals $\pi \times 6$, which is less than 24 ; and Barrow's argument is invalid, Berkeley points out, because Archimedes' proof applies only to circles of more than 24 points in circumference. Barrow then takes a circle of radius 5 points, and offers a similar argument *ad absurdum*. Berkeley's argument would not apply in this case ; hence he suggests a new line of attack, *viz.* that Archimedes' proposition itself (the radius equal to the side of the hexagon) may have to assume the infinite divisibility (see 11*n*) ; on points, see 59*n* ; on Archimedes' proposition, see 510.

464. A further study in the meaning of composition, see 445*n*. Visibles cannot, Berkeley argues, be composed of invisibles ; the supposed invisibles are ' nothings ' and self-contradictory, see 337*n* ; on the *m.v.*, see 59*n*.

465. Read 'receiv'd,' not 'reviv'd' (Fraser and Johnston). In the Preface to the *Principles* Berkeley defends himself against the charges of 'novelty and singularity.' 'I do not pin my faith . . .' *cf.* 'I have always thought and judged for myself.' (*Def.* 19.)

466. Berkeley was no sensationalist; for he is careful to limit the scope of this maxim, saying in effect, 'use your senses about things sensible, and your reason about things rational'; he has in view the mathematical reasoning which would make sensible lines infinitely divisible, by confusing an assertion about the subject 'I can go on dividing' with an assertion about the object 'It is divisible.' On 'nothing' see 337*n*; on the senses, see 317*n*; on demonstration, see 163*n*. 'nonsense' seems to be a sly touch of humour, the insensible being non-sense; he has a similar *double entente* in his words, 'if what you mean by the word *matter* be only the unknown support of unknown qualities, it's no matter whether there is such a thing or no' (*Princ.* 77), anticipating Byron's pleasantry to the effect that if Berkeley said there is no matter, it's no matter what Berkeley said.

467. He is thinking of Locke (see 567*n*). Note the erased words 'free & unprejudic'd search after'; Malebranche's *Recherche* was commonly known in England as the *Search*.

468. Expanded in 532; on certainty, see 163*n*.

469. 470. For the denial of incommensurables, see 29*n*; on points, see 59*n*.

471. 'Nihilarians,' see 337*n*; on 'usefull & practical Mathematiques,' see 207*n*.

472. 473. Berkeley is considering the perceivable (see 52*n*) in the light of the *esse est percipi*, and answering the objection, still commonly urged, that his doctrine removes the distinction between fact and fancy. 'by reason of yt very question,' these words must be read carefully and in the light of the clear, explicit statement of 473. Berkeley does not say that if you ask a question about anything, it thereupon springs into sensible existence, and, as the context shows, he is very far from holding any such absurdity. What he, in effect, says is that if you ask a question about anything at all, that thing thereby has

its *appropriate* type of existence, all types being equally 'in the mind,' though in other respects very different from one another. There is no confusion here between fact and fancy; on the contrary the distinction is most carefully preserved. Images are images, says Berkeley, and not sense-data; but images, equally with sense-data, are 'in the mind,' and therefore if you think you can imagine matter outside the mind, you are self-deceived; see *Princ.* 23, 34; on 'books in the study,' see 429*n*; on existence, see 408*n*; on the imagination, see 531*n*.

I agree with Fraser in reading 'discours'd.' Johnston reads 'discuss'd.' But Berkeley could hardly write 'discuss'd *of*,' and on comparison of the word in the MS. with 'discuss'd' in 569, there can be no doubt that the word here is 'discours'd.'

474. 474a. Here the *verso* flatly contradicts the *recto* with regard to the scholastic distinction between *ens rationis* and *ens reale*; so also 535, 546, 546a. At first Berkeley was a panpsychist (see 24), and understood existence in the mind as mental existence; but in the latter part of the *CPB*, as in the *Principles*, he is a dualist, accepting sensible things ('ideas') as entirely distinct from mind, though dependent thereon; see 304*n*.

475. 475a. What is an infinite idea? *Answers suggested*: (1) a mental process which can go on indefinitely, *e.g.* vision round the visual sphere, see 97*n*, (2) an extension consisting of innumerable points, (3) an idea too big to be comprehended at once. The first answer, subjective infinity, Berkeley accepts; the other two he rejects, the second on the ground that numbers, however great, can be counted and named, the third on the ground that an idea *e vi termini* is comprehensible. He draws similar distinctions in his essay *Of Infinites*; on points, see 59*n*.

476. 477. 477a. Matter in the Cartesian philosophy is, Berkeley argues (as in *Princ.* 22, 53), purposeless and pointless. 'according to their own confession' may refer to Malebranche's well-known *Illustration* (*excursus*), mentioned in 800, *On the difficulty of proving the existence of bodies*. There Malebranche confesses, in effect, that everything could go on as it does, if there were no matter, that the evidence for matter is slight, almost negligible, resting entirely on a point of religious faith, not on reason. The *verso* addition is important

(477a); note its distinction between matter and bodies, its unequivocal recognition of the reality of bodies (see 52*n*), and its distinction between the divine mind and the human, implicit in the initial capital of *Our*. The same capital letter, with the same implication, occurs in 801, *cf.* 838. All things always depend on the mind of God, but they are independent of the mind of man when they are not being actually perceived by him; this is Berkeley's revised and final doctrine of the perceivable. For the word 'compages,' see *Princ.* 22.

478. 478a. A question of high importance, not only for its own sake, but for its bearing on Berkeley's doctrine of existence in the mind. Soul (or mind; the two terms became synonymous; but at first when he is attending to the nature of the *ego* he calls it *soul* for the most part) is a subject on which Berkeley modified his views while he was writing the *CPB*. The question for him was partly one of terminology, and even when he speaks as Hume spoke, he was not really Humian; true, at the earlier stage he identifies soul with its ideas, and calls mind 'a congeries of Perceptions' (580); but that does not necessarily mean that he accepted the passing thought as 'the only thinker'; for behind his soul or mind stood the *person* or spirit or active principle, see 14*n*; on will, see 131*n*.

'as it is distinct from Ideas," *i.e.* in so far as it is distinct from its ideas.

479. Berkeley must be referring, I think, to the final paragraph of the sixth *Meditation* (*cf.* 794) where Descartes writes of 'that general uncertainty as to sleep, which I could not distinguish from waking.' Berkeley's solution would be, no doubt, that of commonsense with respect to the subject, and with regard to the object would consist in his distinction between ideas of sense and ideas of the imagination (*Princ.* 29–33).

480. 'meer minima,' *i.e.* *minima* in their pure, uncompounded state. The notion of evanescence, no doubt taken from the theory of fluxions, is only here applied to *minima* (see 59*n*). Berkeley appears to be considering a possible objection to his theory of *minima*, *viz.* let there be two *minima*, *i.e.* two areas each containing only one point, and therefore, on Berkeley's theory, of equal size. Now suppose them to 'evanesce,' *i.e.* to decrease in size gradually. One might vanish before the other, and would therefore be proved to be smaller, 'So that

one sensibile [note the reading] may be greater than another tho it exceeds it not by one point.'

Berkeley's reply, presumably, would be to traverse the conception of an evanescent *minimum*. Grant a *minimum* in his sense, and the smallest decrease in it would make it vanish.

481. 482. *Cf.* 340*n* and 457. Berkeley is here denying that a circle is a polygon with an infinite number of sides—an assumption sometimes made in proving that all circles are similar figures.

John Wallis (1616–1703), Savilian Professor of Geometry at Oxford, author of *Arithmetica Infinitorum* (1655)—a landmark in the history of the calculus, mentioned in Berkeley's essay *Of Infinites*. For this 'harangue,' see his *Arithmetica*, prop. 165. See 834*n* for the controversy with Hobbes, which touches most of the mathematical problems debated in the *CPB*.

483. Berkeley regarded geometrical abstractions such as length without breadth (see 21*n*) as the main source of the doctrine of infinite divisibility. On *general* (figure), later called *abstract general* and abbreviated *abstract*, see 318*n*.

484. 484a. Studies in resemblance, of importance to Berkeley because of Locke's dictum, 'Ideas of primary qualities are resemblances; of secondary, not' (II viii 15). The point is whether an idea in our minds can be *like* something outside our minds, *viz.* matter. Berkeley's broad conclusion here that 'nothing can be like an idea but an idea' forms an important part of the demonstration of the New Principle in 378, where see note.

From Locke's account of complex ideas as made out of simple ones it would seem to follow that simple ideas held in common must be the basis of comparison and likeness. Berkeley is here debating that issue, and on the *verso* he expresses himself dissatisfied with the provisional conclusion of the *recto*. The same point appears in 378, props. 13–14, and 496. When Berkeley gave up Locke's doctrine of simple ideas (see 53*n*), he gave up, of course, this line of argument, and it is not found in his publications; but the principle that matter cannot be *like* an idea remained an important part of his argument for immaterialism (see 46*n* and *Princ.* 8). On extension, see 18*n*.

485. 'No sharing,' *cf.* 'Hath Nature no share . . .,' *Princ.* 150. On 'second

Causes,' *i.e.* unthinking second causes, see 403*n* and *Princ.* 32; on Nature and God, see 107*n* and 794.

486. *e.g.* 'Si lapis vi gravitatis suae deorsum ad terram cadat, terra vicissim ad lapidem assurget,' Keill, *Introd. ad veram Physicam*, p. 125, *cf. Mot.* 12; on attraction, see 361*n*.

487. 488. Christian Huygens (1629–1695), mathematician, physicist, and astronomer; friend and correspondent of Leibniz, who said that Huygens 'ought to be named immediately after Descartes and Galileo.' Locke (Ep. to the Reader) couples him with Newton as 'masters.' His greatest work was *Horologium Oscillatorium* (1673), in which he sought an exact measure of time for astronomical and nautical calculations, trying to correct minute variations in the swing of the pendulum, and thus to reduce its movements to geometrical exactitude. His theorem is given as, 'tempus unius oscillationis minimae est ad tempus descensus perpendicularis ex dimidia penduli altitudine ut circumferentia circuli ad diametrum, hoc est ut 355 ad 113,' *ib.* p. 155. On the same page he uses the symbols ′ ″ ‴ for small measurements of time. From these minute durations Berkeley went on, no doubt, to consider the infinitesimals of time (see 8*n*), proposing to neglect them as 'nothings,' see notes on 337 and 590. By 'attained to by my Doctrine' Berkeley means presumably, 'consistent with immaterialism and my doctrine of indivisibles.'

489. On colour and the *minimum*, see 442*n*; on colour composition, see 151*n*; on the *minimum*, see 59*n*.

490. Locke classes ideas of the operations of our minds with ideas of reflection. Berkeley seems to have been disposed at first to adopt Locke's classification (see 571); but later he decided that ideas were passive, and that accordingly there can be no ideas of operations, see 176a, 523, 663, *Princ.* 27, 135*ff*. He refuses the term *idea* to the mind and its operations, but, strictly speaking, he does not 'confine' it to things sensible; for he applies it freely to objects of the imagination, which, though they have a basis in sense, are framed by the mind and are not properly described as *sensible*. In the second edition of the *Principles* (1734) he inserted several paragraphs which authorize the use of the term *notion* for mind and its operations.

491. Zeno's antinomies of motion are a case in point. On the meaning of existence, see 408*n* ; on scepticism, see 79*n* ; on the New Principle as a cure for scepticism, see 304*n*.

492. ' One may often meet with very clear and coherent discourses that amount yet to nothing,' *Locke* IV viii 9 ; *cf.* 574 ; for strictures on the Schoolmen, see *Princ.* Introd. 17, and for the comparison between them and mathematicians, see 327*n*.

493. On power, see notes on 41 and 52 ; on simple idea, see 53*n* ; on cause, see 403*n*.

494. 495. Berkeley here questions Locke's principle that all significant words stand for ideas, see 178*n*. He denies that we can *imagine* colour without extension ; but he grants that we can *consider* one without the other (318). On colour and extension, see 85*n* ; on extension, see 18*n*.

Locke (III ix) deals with the ' double use of words.' Berkeley repeats his criticism of ' recording ' in 565, but seems to withdraw it in 607 ; the *Draft Introduction* to the *Principles* (Fraser III, p. 372) discusses both ' recording ' and ' communicating ' ; the published Introduction (18*ff.*) omits the reference to ' recording.'

496. 497. On simple and abstract ideas see notes on 53 and 318 ; on the comparison of simple ideas see notes on 378 (14) and 484. Extension is seen and touched, but is not tasted or heard (see notes on 137 and 240); that is Berkeley's reason for holding that it is easier to form abstract (not abstract general) ideas of tastes and sounds. Colours are essentially located ; but tastes and sounds are not.

498. On experimental philosophy, see 406*n*.

499. 499a. Distinguishing cause (see 403*n*) from occasion (see 228*n*, 754, 855–6). According to 856 occasions are causes that do nothing. In *Princ.* 69*ff.* Berkeley examines what is meant by *occasion* ; it is to him simply matter in disguise ; he is therefore not an occasionalist, but he shares with the occasionalists belief in the omnicausality of God and the rejection of unthinking second causes.

Since for him existence is simply to perceive or be perceived, 'a Being which wills' is a pleonastic phrase. Hence the *verso* comment.

'some other Cause,' the first appearance of his causal argument for the existence of God, see *Princ.* 26, 29.

500. The sides of the two squares would have to be in the ratio of 1 to $\sqrt{2}$, a special case of the problem of incommensurability.

501. On Barrow and the Barrovian Case, see 75*n*.

502. 503. 504. 505. Remarks on the composition of colour, see 151*n*; on green, see 240*n*. Newton mentions several sorts of green, *Optics*, Bk. II, pp. 59, 90.

'mixt cause,' *i.e.* composite cause, see 562. Berkeley is arguing that light being composite, our light sensations will be composite; he is using the term *cause* here in the popular sense.

506. Speaking of the Society's original meetings at Oxford, Sprat says that they furnished a race of young men with 'minds receiving from them their first impressions of sober and generous knowledge . . .'—*The History of the Royal Society of London for the improving of Natural Knowledge* (by Thos. Sprat, 1667), p. 53.

507. Berkeley does not give a formal definition of idea; but he comes near doing so in 808 where he writes, 'yt I think on wtever it be I call Idea'; in *Princ.* 39 he says, 'Since therefore the objects of sense exist only in the mind, and are withal thoughtless and inactive, I chose to mark them by the word idea, which implies those properties.' On definition, see 44*n*.

508. 'Second Book,' *i.e. Principles*, Part II, which was lost in Italy. Berkeley refers to it in the Preface to the *Three Dialogues*, in his draft letter to Le Clerc (B. M. Addl. MSS. 39304), and in his letter to Johnson dated 25th November 1729 (*Fraser* II, p. 18). It dealt with moral philosophy. The *Principles* in 1710 came out as Part I; the 'Part I' was omitted from the title-page, though retained at the beginning of the text, in the second edition.

Berkeley originally planned three Books or Parts, besides the *Theory of*

Vision ; he mentions the first book in 571, 792, the second book again in 807, 878, and the third book (on natural philosophy) in 583, 853 ; he refers to his literary plans and intentions in 139, 212, 378a, 401, 513, 543, 562, 679, 680, 719, 736, 817, 858 ; see also 676*n*. On God, see 107*n* ; on moral freedom, see 149*n*.

509. On geometry, see 117*n* ; on practice *versus* speculation, see 434*n*.

510. 511. For the related problems of squaring and rectifying the circle, see 245*n*. This proposition of Archimedes has to do with squaring the circle ; it is distinct, apparently, from the proposition of Archimedes referred to in 462, where see note ; the latter deals with rectifying the circle. On inequality discerned by the microscope, see 360*n* ; on Barrow, see 75*n* ; on minimal points, see 59*n*.

512. Locke (II xxiii 2–4) distinguishes between substance in general and our ideas of particular substances, which are collections of several simple ideas. Berkeley clearly has this distinction in mind, but he is in the main giving his own doctrine here ; *viz.* that things are ' collections of ideas ' (*Princ.* 1), *i.e. are* the sensible qualities which we see and sense ; that there is no non-spiritual substance ; that there is no abstract or general idea of body or matter.

' or any thing else ' an inexact term for ' or any other unthinking thing ' ; Berkeley always affirmed spiritual substance. In *Princ.* 37 he distinguishes the philosophic sense of corporeal substance (denied) from the vulgar sense (affirmed) ; on substance, see 80*n*.

513. On words, see 178*n*.

514. 515. 516. The problem of equality is examined again in 525, 528–31, 778). Berkeley starts from the definition, ' quae sibi mutuo congruunt . . . ,' which Sir H. Savile, Hobbes says, held to be ' the foundation of all geometry.' What is congruence ? Berkeley asks ; it cannot consist in superposition ; for a curve cannot be superposed on a straight line ; besides, superposition involves external distance (*cf. TV* 155), and directly contradicts the *esse est percipi* ; for the ' under triangle ' is not perceived. Congruence cannot be judged by sight or by touch (528), nor by imagination or pure intellect (531), and it must consist therefore in having the same number of sensible points (see 59*n*).

This answer is modified in 530a, where Berkeley says that those lines are equal between which no difference can be observed by the senses and which are therefore called by the same name, *cf.* 778. He uses the term 'congruent' in 150. In 516 for 'as many,' Fraser and Johnston read 'the same.'

517. 517a. 518. Berkeley here considers the meaning of substance (see notes on 80 and 512), and argues that the surrender of material substance is not a surrender of reality (see 52*n*) ; 'nec quid nec quantum,' etc., *i.e.* matter, see 22*n*.

Edward Stillingfleet (1635–1699), Bishop of Worcester, author of *Origines Sacrae* (1662), is referred to in the opening words of the entry ; for he styled Locke (see *Locke* II xxiii *note* B), 'one of the gentlemen of this new way of reasoning, that have almost discarded substance out of the reasonable part of the world !' Berkeley was anxious not to offend 'the Stillingfleetians' (see 700), the English Church party who had lingering sympathies with the Scholastics. In 517 for 'never' (before 'tainted'), perhaps read 'not.'

519. 520. On curves, see 360*n* ; on points, see 59*n*.

521. For the metaphor *cf.* 742 and *Locke*, Ep. to the Reader, 'Its searches after truth are a sort of hawking and hunting' ; for truth in the mind, see 696 and *Locke*, *passim* ; on the nature of truth, see 554*n*.

My reading 'afoot' seems to me certain ; Fraser and Johnston read 'a fool.' Berkeley does not cross his 't's' ; the 'l' in fool in 542 is looped, but there is no loop here. Besides, 'afoot' makes much better sense ; it is in contrast with 'on horseback' understood in 'fleet,' as 'clumsey' is in contrast with 'dexterous.'

522. 523. This Lockian principle, accepted in 312, placed at the head of his 'demonstration' of the Principle in 378, but denied in 730, is here set down for examination, not in approval ; for it confronts Berkeley with the dilemma, either there is no self-knowledge, or there is an idea of an active being (on which, see 490*n*) ; on person, see 25*n*.

524. On general ideas, see notes on 318 and 401.

525. On equality, see 514*n*.

526. Locke (IV ii 10, 11) makes this distinction between quantitative simple ideas (number and extension) and other simple ideas, and gives it as a reason why demonstration is thought to be limited to mathematics. Berkeley considers that simple ideas do not admit of modes or degrees (see 53*n* and 134), and turns to his experiments in colour composition (see 151*n*) in proof that so-called simple ideas are—some of them—complex.

527. On curves, see 360*n* ; on curves treated as polygons, see 481*n*, *Anal.* 21.

528. 529. 530. 530a. 531. Further studies in the nature of equality ; see 150*n* and 515*n* ; on points, see 59*n*.

The last word or two in 529 are almost illegible, but I prefer ' difficulties ' to ' difficulty truly ' (Fraser and Johnston).

The reference to the threefold division of our cognitive faculties, sense, imagination, pure intellect (prominent in Malebranche's *Recherche*) should be noted, *cf.* 472, 828, and especially 775, where Berkeley first wrote ' any sensible or imaginable or intelligible thing.'

The imagination holds an important place in Berkeley's philosophy, partly for its own sake as being the first evidence of the mind's activity (*Princ.* 28), and partly because its ideas form a foil to ideas of sense (*Princ.* 29*ff.*) ; the imagination is often mentioned, and is sometimes considered, in the *CPB* ; see 31, 36, 294, 321, 415, 417–8, 472–3, 582, 609, 657a, 792, 818, 823, 830, 886. Berkeley's main contentions are that ideas of the imagination are copies of ideas of sense, and that the Principle (*esse est percipi*) extends to the imagination ; *cf.* ' they both [sense data and *imaginata*] equally exist in the mind, and in that sense are alike *ideas* ' (*Princ.* 34).

Pure intellect is mentioned once more in the *CPB*, *viz.* in 810, ' Pure Intellect I understand not.' It is not mentioned in the *Principles*, but it appears in the *Three Dialogues* (p. 404), accepted with reserve as a faculty by which we apprehend ' spiritual objects, as virtue, reason, God, . . .' but under suspicion of being a pseudo-faculty of abstract ideas ; so also *Mot.* 53. In *Alc.* VII 6 (1st ed.) the term occurs in the mouth of Alciphron for the alleged faculty of abstract ideas. Berkeley's hesitation about pure intellect was due to his desire to affirm a rational faculty of spiritual apprehension without leaving a loophole for false abstraction. In this entry he argues that if there be such a

faculty, it could not be concerned with lines and angles, which are not operations of the mind, and therefore not spiritual objects.

532. An expansion of 468 : on demonstration and certainty, see 163*n*.

533. On the corpuscularian essences, see 234*n*. Locke (IV iii 11–14) is arguing that we know very little of the inner constitution of things, that the connection between primary and secondary qualities is undiscoverable, and that the connection between primary qualities themselves is, for the most part, known to us only by experience : but he grants that in a few cases the connection is seen to be necessary, and he instances the dependence of figure or extension and motion on solidity. Berkeley denies that motion (see 202*n* and *cf.* 864, 876) pre-supposes solidity (see 78*n*).

534. A quotation from Locke, duplicate of 76, where see note.

535. The first of the Objections to immaterialism, stated and answered in *Princ.* 34 along the lines of this entry : on the reality of bodies, see 52*n* : on *entia rationis* and *entia reale*, see 474*n*.

536. On real and nominal essences, see 234*n*.

537. One of the few entries without index letter or sign. On the abuse of words, see 178*n*. The use of words without clear and distinct ideas is, for Locke (III x 2), 'the first and most palpable abuse.' For 'clear and distinct ideas'—a slogan of the Enlightenment—Locke in his fourth edition (see *Ep. to the Reader*) substituted in most places 'determinate' or 'determined.' Berkeley here, as in 591 and 636, combines the terms.

538, 539. These should be read together : otherwise 538 might give the impression that Berkeley is doubting the life beyond. His point is that Locke's system undermines faith in the supersensible, while his own confirms it.

Locke speaks of the intellectual world (*loc. cit.*) as 'a greater, certainly, and more beautiful world than the material,' adding that it is almost entirely concealed from us 'in an impenetrable obscurity.' The scepticism or agnosticism latent in that position was clear to Berkeley : such a heaven draws no response from the will and has no influence upon conduct. Locke's

distinction is therefore 'vain,' and his scepticism is rooted, Berkeley implies, in his distrust of the senses. Our higher faculties, Berkeley holds, are linked up with sense; if therefore we trust our senses and have a reasoned belief in the sensible (*not* material) world, we can rise to a conception of the supersensible more 'agreeable to our present nature.' The startling 'Sensual Pleasure is the Summum Bonum' (769) should be understood in the light of this elevated conception of the senses (see 317*n*), and of earthly pleasure as a pointer to heavenly bliss. See his sermon on Life and Immortality, which belongs to the same period as the *CPB*, being dated 11th January 1708. 'Introversion,' *sc.* introspection; the term was a favourite with the mystics in the seventeenth century (see *Oxford English Dictionary*). The illegible word after 'all' may be 'kinds,' and for the blank in the line above, perhaps read 'for them.'

540. This remarkable entry is evidence (if any were needed) of the maturity of Berkeley's mind and the breadth of his outlook in his early manhood. Commentators have remarked on his comparative silence about relations in his early books, and have considered it a mark of immaturity. This entry helps to explain that silence, showing that he had considered relations and their nature, but regarded the *relata* as more instructive than the *relation* in the earlier stages of speculation. This view was, no doubt, a phase of his feeling for the concrete as against the abstract. Relations are mentioned also in 134, 461, 503, 545, 677, 733, 739, 853, but no systematic treatment of them is given. Relation for Locke is the largest field of our knowledge (IV iii 18); but for Berkeley it was an 'Obscure ambiguous term' (733), associated especially with mathematics, yielding merely nominal knowledge. This judgement is corrected to some extent in later editions of his books, *e.g. Princ.* 89 (2nd ed.) and *Alc.* VII 12, 14 (3rd ed.), and indeed some relations such as cause and effect are discussed in the first editions.

541. 542. The notions of profit and pleasure meet in that of interest (*cf.* 'advantage,' *Princ.* 100). Berkeley teaches that pleasure is objectively determined, and that there is no state of hedonic indifference, 143–4, 833; that perception and desire are conditioned by pleasure and pain, 321, 692; that sensual pleasure 'rightly understood' is the *summum bonum*, 769; that quâ pleasure it is good and desirable, 773; that both happiness and good are

relative, 569; that there are qualitative distinctions between pleasures, pure and impure, present and future, 787, 851, 852.

This frank hedonism startles those who associate hedonism with naturalism; but Berkeley was without question a hedonist, who attached importance, as did Butler, to the pleasures of the senses, seeing in them a pointer to the pleasures of heaven and 'celestial joys'—see 539*n*. There is nothing, however, in his published works corresponding to the extreme statement on 'sensual pleasure' in 769, which ought not to be taken literally. Berkeley's hedonism was opposed to Epicureanism and Hobbesism (17, *Princ.* 93), was not exclusive or egoistic, and recognized qualities of pleasure, recommending the higher and purer pleasures; and therefore when he speaks of 'sensual pleasure' as the *summum bonum*, he is not referring to pleasures of appetite; probably 'sensual pleasure' means the sense of pleasure or perceived pleasure as opposed to abstract ideas thereof; Berkeley contended for reality in ethics, as he did in metaphysics, and he appealed from abstract ideas of happiness and goodness to pleasure actually felt, and goodness actually willed (see *Princ.* 100).

If his Part II of the *Principles* had been published, we should be in a position, no doubt, to clear up this difficulty and to judge his ethical system as a whole; but as it is, we have very little material on which to base a judgement, merely these few notes of his in the *CPB*, *Princ.* 100, *Passive Obedience*, and casual references in his sermons and other writings. In 542 for 'understanding,' perhaps read 'considering.'

543. No statement of this type appears in the Preface of the *Principles*—a book not wanting either in modesty or in decision. The statement of 532 is a better expression, I think, of Berkeley's attitude.

544. On the metaphorical use of sensible terms for operations of the mind, see 176*n*. On the imperfections of language, see 178*n*; Berkeley himself uses his technical terms (*e.g.* idea, external) 'in some Latitude.' On the understanding which is carefully studied in the latter part of the *CPB*, see 362a *n*.

545. 'That I have any such idea answering the word *unity* I do not find,' *Princ.* 13, *cf. TV* 109. Number, for Berkeley, 'consists in Relations,' and is therefore 'entirely the creature of the mind,' *Princ.* 12; on relations, see 540*n*; on unity, see 75*n*; on simple ideas, see 53*n*.

546. 546a. On the same contradiction between *recto* and *verso*, see 474*n*; 546 is scarcely consistent with 535; 546a has been missed by other editors; 'words' is not certain; on the reality of body, see 52*n*.

547. Johnston reads 'no' for 'an,' a blunder that may have serious consequences in Berkeleian exegesis. Berkeley is no solipsist, nor problematical idealist; for he knows the existence of 'other things besides our selves,' and this knowledge, for him, is logically prior to self-knowledge.

Intuitive knowledge of other things is asserted again in 563 (*cf.* 813 for the denial that we have an intuition of God); *intuitive*, for Berkeley, does not mean *mystical*, but *direct* and *immediate*. Johnston's statements in his note on 568 (my 563) that Berkeley in his published works never admits the possibility of intuitive knowledge and maintains that it is a broken reed are unfounded. Indeed Berkeley's main doctrines, existence in the mind and the *esse est percipi*, can be apprehended, he says, by 'an intuitive knowledge,' *Princ.* 3.

For Locke (IV ii) intuitive knowledge 'is the clearest and most certain that human frailty is capable of' and is to be distinguished from demonstrative and sensitive knowledge. The entries 79–80 and 563 show that Berkeley has Locke's doctrine definitely in view, and is promoting our knowledge of the sensible world from the third rank ('an assurance that deserves the name of knowledge,' *Locke* IV xi 3) to the first rank.

548. Malebranche (VI ii 3) writes, 'There is no necessary connexion betwixt the will we may have of moving our arm, for instance, and the motion of the same arm. It moves indeed whenever we will it, and we may be called in that sense the natural cause of the motion of our arm; yet natural causes are not true, but only occasional.' Berkeley is glancing at this famous passage; he intends to allow more efficacy to the human spirit than the Oratorian does; but whether he succeeded in doing so may be doubted, see 107*n*, *Princ.* 53, 147, *Siris*, 257. In justice to Malebranche (see 230*n*) it should be remembered that he too held that 'tis we that will their movement'; his point is that we cannot and do not give effect to our will to move the arm.

549. 549a. 550. The transition from the reality of knowledge to the reality of things is well illustrated by Locke's question in the passage here cited, 'How shall the mind, when it perceives nothing but its own ideas, know that they agree with things themselves?' On reality, see 52*n*.

551. For this (to us) extraordinary emphasis on demonstration, see 163*n*; on likeness as part of the argument for immaterialism, see 46*n*; informal definitions of likeness are contained in 378, 13–19; on colour composition, see 151*n*; on simple ideas, see 53*n*.

552. Showing the connection between Berkeley's New Principle on the nature of existence (see 408*n*) and his doctrine of abstract ideas (see 318*n*); 'never thought of by the Vulgar,' see 405*n*, 703, *Princ.* Introd. 10.

553. On Berkeley's study of words, see 178*n*; 'settle the meaning of their words'—*cf.* 544 and Locke III ii 7.

554. 555. On truth. Locke (IV v 2) says that truth signifies 'nothing but the joining or separating of signs, as the things signified by them do agree or disagree one with another.' In the next chapter he argues that general truths require to be expressed in verbal propositions, and he proceeds to infer that, since general propositions about substances are never certain, we can attain general knowledge only by 'the contemplation of our own abstract ideas.' This argument 'makes for' Berkeley by supporting his contention (*Princ.* Introd. 18*ff.*) that language is the source of mistaken claims for abstract ideas, see notes on 318 and 401.

Berkeley does not treat of truth systematically either in the *CPB* or in his publications; but we may glean the following observations: truth is what philosophy in its three branches, natural, mathematical, and moral, seeks, 676; Locke's account of truth is apparently commended, 376; truth is in our own understanding, 521, 696; to distinguish thing from idea destroys truth, 606; truth may be merely an abstract idea, 873; signs are not necessary to the finding of truth, 883. The last three of these observations are criticisms of Locke's account of truth. Locke, being a representationist, distinguishes idea, as sign, from the thing signified, and he can escape confessed scepticism only by his artificial doctrine of abstract ideas.

Berkeley himself believes in signs, but in signs that present and do not represent; his ideas of sense are signs, real signs, signs which do not differ in kind from the thing signified, and therefore a knowledge of nature, for him, is a knowledge of the connection between God-given ideas, *i.e.* a knowledge of signs by signs, see *TV* 140–148, *Princ.* 44, 65–6, 108; *Alc.* IV 7, VII 11, *Siris* 258, 261, 266.

556. The advance of science, Berkeley thought, had been purchased at the cost of neglecting the elementary principle of relativity to mind; hence his curious metaphor of travelling backward; on his Principle, see 285*n*.

557. 558. Berkeley raises this question in 86 and again in 445 (where see notes). On points, see 59*n*.

559. 'Forasmuch as' occurs in 586, but in his books Berkeley avoids stilted phrases; on his literary style, see 209*n*.

560. Throughout his life Berkeley was interested in politics and public affairs; see his letters, *Passive Obedience*, the *Querist*, and several minor publications.

561. Here Berkeley reaches his full and final doctrine of abstract (general) ideas, see 318*n*. He distinguishes them from concrete universals or *genera*, traces their origin to a mistaken theory of words, finds them self-contradictory, and illustrates the contradiction by referring to Locke's 'absurd triangle' (IV vii 9)—all this exactly as he does in the Introduction to the *Principles*. The passage from Locke is referred to again in 687, *Alc.* VII 5 (1st ed.), *Def.* 45*ff*.

562. An *a priori* proof, based on Newton's *Optics*, of the composite character of colours (*cf.* 551); Berkeley claimed to have reached the same result by experiment (see 151*n*). 'my Treatise,' *i.e.* the *Principles*. On 'mixt cause,' see 504*n*; on simple ideas, see 53*n*; on demonstration, see 163*n*; on definition, see 44*n*.

563. Berkeley is concerned to refute the charge of scepticism (see 79*n*), and he appeals to his *intuitive* knowledge (see 547*n*) of sensible things, which, according to Locke, are known only by *sensitive* knowledge, *i.e.* opinion.

564. 565. 566. A group of entries dealing with words as the source of abstract ideas (see notes on 178, 318, 401). My reading 'Bacon' for 'Barrow' (Fraser and Johnston) is quite certain. This is the only mention of Bacon in the CPB. The reference is probably to the Idols of the Marketplace (*Nov. Org.* Bk. I, 59–60) which are imposed by words on the understanding, and spring 'out of a faulty and unskilful abstraction.'

For Locke on recording and communicating ideas, see 495*n*.

566 contains the first mention of the Solitary Man—an experimental conceit doing for words and ideas what the blind man of the Molyneux Problem had done for sight and touch; it is applied to abstract ideas again in 727, to the *esse est percipi* in 588, to identical propositions in 592, to the recording of ideas in 600, 607, to number in 648, to complex ideas in 727a. The supposition is given *in extenso* in the *Draft Introduction* (*Fraser* III, p. 379) and the next section (*prima manu*) begins, 'I shall therefore endeavour, so far as I am able, to put myself in the posture of the solitary philosopher,' and Berkeley proceeds to detail the consequences. The Solitary Man does not appear in the *Principles* as published, but possibly the illustration of the men made to speak (*Dials.*, p. 467) is derived from it. The conceit is an attempt to reach the pure data of experience, and is comparable to the Philosophus Autodidactus of the Arabian tale, and to Defoe's *Robinson Crusoe* (1719) and his *The Dumb Philosopher* (1719).

In his discussions of words Berkeley, like Locke, is unsatisfactory; they both have a wrong conception of the relation of thought and speech; they assume that thought is a self-contained process; they do not allow for inner speech and the effect of speech on thought; in consequence speech to them is simply the expression of thought, mere utterance.

567. The 'mist' is 'the mist or veil of Words' (642). There are scores of references to Locke in the *CPB*, but this entry with 467 and 688 are among the few that give any indication of Berkeley's personal feelings towards him.

568. In 192 (see note) Berkeley refuses to accept any other identity than perfect likeness in respect of inanimate things; presumably then he would call two peas identical if they are perfectly alike, *i.e.* indistinguishable; and such identity, being generic and taking no account of the place and time of the object, would be that identity which he here calls 'excluding identity of circumstances.'

What then, for him, is the identity *including* identity of circumstances? And does he mean by the words 'may be taken' that he himself would take identity in both senses? Identity *including* identity of circumstances could only be the momentary (numerical) self-identity which we ascribe, for instance, to this pea *hic et nunc*. Such identity is described in *Locke* II xxvii 1; it involves

no likeness, and therefore Berkeley would be averse, it would seem, to using the term *identity* in such a case.

The erased *verso* comment 192a speaks of ' difference intrinsical or extrinsical,' a reference, no doubt, to these two types of identity.

569. Berkeley denies that happiness and good are absolute, holding that a man's happiness is relative to that of his social group, and a man's good relative to the end in view, *cf.* 852. Thus ignorance of the relativity of happiness and of the relativity of good would be his ' 2 Causes of mistake ' ; on his hedonism, see 541*n* ; ' much,' no doubt a slip for ' must.'

The *personalia* of this entry are of some interest. First, we may infer from Berkeley's words that he was a man of moderate means ; this tallies with what we know of him from other sources ; he went to a good school, Kilkenny College, and he moved in good Dublin society ; yet he could not have been a wealthy man ; for he was an Erasmus Smith Exhibitioner.

Who were French and Madden ? Clearly they were college friends and probably members with Berkeley of his society for discussing the New Philosophy, but we cannot identify them precisely. The names occur frequently in the Trinity College books of the period, and we can read the three names together, French, Berkeley, and Madden, in a contemporary document (a list of debts to Trinity College !). This document is part of a series of notes by Matthew French, *senior*, recently edited with comments by Dr. Alton in ' Some Fragments of College History,' *Hermathena*, Vols. LVII, LVIII (1941). There are four names to be considered : John Madden, Samuel Madden, Matthew French *senior*, and Matthew French *junior*, all men of distinction and in college about Berkeley's time. Two of them were Fellows, *viz.* John Madden (elected 1710, resigned 1724, Vicar of St. Anne's and Dean of Kilmore, died 1751) and Matthew French *senior* (elected 1699, died 1714). The two non-Fellows were Samuel Madden (1686–1765—see *Dict. Nat. Biog.*) and Matthew French *junior*, who won Scholarship of the House in 1701, and was therefore but one year senior to Berkeley. Samuel Madden, cousin of the above John Madden, was known as ' Premium Madden ' because of his advocacy of prizes for learning ; he matriculated in 1700 (Berkeley's year), graduated B.A. in 1705 and D.D. in 1723 ; he was a noted philanthropist, and he wrote various works including the play *Themistocles*. He acted for Berkeley as ' editor ' of the *Querist*.

570. Locke (III iv 7) says that names of simple ideas (see 53*n*) are indefinable because they contain no reference to other ideas. Berkeley here suggests another reason, *viz.* insufficiency of names. He does not discuss simple and complex ideas in his published works.

571. The word before 'to use' is almost illegible; it is not 'sensation'; it might be 'reflection,' but more probably it is 'those.'

'the 1st Book,' *i.e. Principles*, Part I, see 508*n*; a mention of sensation and reflection (*cf.* 585, 656, 670) at the beginning would suggest a treatise on Lockian lines. The *Principles* opens with a survey of the objects of human knowledge, but does not mention reflection, Locke's ideas of reflection being in a measure covered by Berkeley's objects 'perceived by attending to the passions and operations of the mind.' Berkeley had two objections to Locke's primary division of ideas, (1) It involves the absurdity of passive ideas of active operations, (2) It separates perception from objects of perception, see 585, 609.

572. A pointer to the tense discussion of mind, soul, and ideas in 576–582.

573. The reference is, I think, to *Locke* IV x 10, where the supposition of matter and motion before thought is used to prove the existence of God. On 'includes a manifest Contradiction,' see 299*n*.

574. A repetition of 492, where see note.

575. Euclid's definition, What has no parts is a point, appears to favour the geometry of indivisibles, which Berkeley supported, see notes on 59 and 353; on curves, see 360*n*.

576. 576a. 577. 578. 579. 580. 581. 582. A remarkable group of entries on mind, soul, and ideas, which has given many readers the impression that at this stage Berkeley was a sceptic about the soul. Certainly if Berkeley had *published* statements like his, 'The very existence of Ideas constitutes the soul. . . . Mind is a congeries of Perceptions,' he would deserve to rank with Hume; but there is nothing of the sort in his books, where he always insists that 'mind, spirit, soul, or my self' denotes 'the perceiving, active being,' a thing entirely distinct from ideas. How then are these entries to be explained? They are

the result, I think, of an earlier technique, later discarded. Berkeley never was a sceptic ; he always from his earliest days of systematic thought believed in the active being ; but he called it *person* when he was writing the first part of the *CPB* (see 24). The person or active being stands in the background of these remarks, and by *mind* and *soul* he did not mean at the time what we mean by those terms and what he himself later came to mean by them. When the active being to him was the *person*, then *mind* and *soul* were used by him as collective terms for the passive contents of thought and will ; and they are still frequently used so in everyday speech, *e.g.* ' I changed my mind.' But as he worked on at his technique and filled the later pages of the second notebook (*A*), the active-passive distinction dominated his mind, and he began to see reasons, mainly theological (713) for discarding the term *person*. He gave up *person*, and then he had to ask himself where he stood with regard to the active being, and whether he could still continue to treat *mind* and *soul* as passive and as identical with their contents. He decided against his earlier usage, and in his publications he speaks indifferently of mind, spirit, soul, or *myself as active, and as the equivalent of what he had formerly called person.* On knowledge of the soul, see 154*n* and 478*n* ; on the understanding, see 362a *n* ; on consciousness, see 200*n* ; on the imagination, see 531*n* ; on ' thing *weh* perceives,' see 115*n*. In 581 ' words ' (after ' empty ') is doubtful, perhaps ' sounds.'

583. On empty space, see notes on 96 and 135. On ' the 3d Book,' see 508*n*.

584. Berkeley accepted the principle of demonstration (see 163*n*), and he here considers it in relation to religion, natural and revealed. He allows proofs in natural religion, such as Clarke's *Demonstration of the Being and Attributes of God* (1705–6) ; but he refuses to allow demonstrations with regard to the key doctrines of revealed religion, such as the Trinity (see 350*n*). He would have these doctrines accepted by implicit faith (see 720, *cf. Maleb.* I iii) along with matters of institutional religion, such as episcopacy, deduced or demonstrated therefrom.

585. A criticism of Locke's distinction between ideas of reflection and ideas of sensation (see 571*n*).

Hecht notes that the text is illegible ; that is true only of the three words or

so after 'white.' Up to that point the reading, as given, including the full-stop, is certain. Of the illegible words the first begins with 'Men . . .' or 'Mea . . .'

586. For demonstration in the Introduction as originally planned, see notes on 163 and 212. 'It is the contemplation of our own abstract ideas that alone is able to afford us general knowledge,' *Locke* IV vi 16. On abstract ideas, see 318*n*.

587. Berkeley is considering the double question as to how the understanding and the will, respectively, are related to their contents. At this stage of his thinking he would agree with Malebranche (I i) in calling the understanding 'that passive faculty of the soul,' and therefore he identifies it, more or less, with its ideas; but he did not for long remain at that stage, and in the end the understanding became for him active, distinct from its contents or ideas, and a synonym for cognitive mind, see 362a *n*. A somewhat similar development took place with regard to the will; here he is thinking of identifying it with the passions or things willed, which he often calls volitions; but later it stands out in contrast over against its contents or objects, and, joined to the understanding, forms 'The Concrete of the Will & understanding,' called mind (713).

588. 589. Applications of the New Principle (see 285*n*); on the Solitary Man, see 566*n*. 'There was an odour, that is, it was smelt'; an instance of the *esse est percipi* given in *Princ.* 3. Note '*it* was smelt,' *not* simply 'there was a smelling'; Berkeley keeps the sensible object distinct from mind, though in relation to it.

590. Berkeley's attitude to apparent interruptions of conscious life is discussed in the note on 83. The intervals are 'nothing,' because time (see 4*n*) is regarded as an unbroken sequence of ideas. On the privacy of time, see 9*n*.

591. On words as the source of abstract (general) ideas, see notes on 178, 318, 401; on 'clear & determin'd,' see 537*n*.

592. Berkeley is using trifling propositions as proof, against Locke, that words can be used without ideas; see 354*n* and *cf.* 728. Locke (IV vii 10) quotes

'the whole is equal to all its parts' as an instance of a scholastic 'maxim' which, on analysis, proves to be a trifling proposition. On the Solitary Man, see 566*n*.

593. On the New Principle as the meaning of existence, see 408*n*, *Princ.* 3.

594. Locke (II xi 10–11) places the 'proper' and the 'perfect' difference between man and beast in the power of abstraction (see 318*n*). Berkeley touches on the question lightly in *Princ.* Introd. 11; in this entry he suggests that besides the sharp differences, language and shape, there are graded differences, 'Degrees of more & less.' By these last he means, no doubt, such qualities as intelligence, which is found in the animal world, but is more highly developed in man. In 753 he suggests as a *differentia* 'Composition of Ideas,' *i.e.* the imagination.

595. On inferences in words, see *Locke* IV xvii 18, and 178*n*.

596. On the imperfection of language, see 178*n*.

597. This variety of the hypothesis of matter, perhaps the *materia prima* or *subtilis* referred to by Locke (II xxiii 23 and III x 15), is dealt with by Berkeley as an 'unknown support of unknown qualities' in *Princ.* 77. On substance, see 80*n*; on existence, see 408*n*.

598. Locke (II xxi 28–34) protests against the common confusion between will and desire; he describes *will* as 'a power in the mind to direct the operative faculties of a man to motion or rest,' and *desire* as 'an uneasiness of the mind for want of some absent good.' Thus, he says, I may try to persuade a man, at the same time not desiring to prevail. Berkeley does not make the point of his criticism very clear. For his objection to the doctrine of uneasiness, see 145*n*; on will, see 131*n*.

599. Berkeley refers again to the spontaneity of the imagination in 707, where Locke's doctrine of uneasiness is also in view. He considers Locke's theory deterministic, and is using the imagination as an argument for freedom, as in *Princ.* 28, 'This making and unmaking of ideas doth very properly denominate the mind active.'

600. These very words occur in the *Draft Introduction* (*Fraser* III, p. 380) as the third advantage to be gained from adopting 'the posture of the solitary philosopher'—see 566*n*. Locke (IV v 4) said that many 'would perhaps have little left in their thoughts and meditations' if they were to 'lay by' cant words; on words, see 178*n*.

601. See 724 where the argument is expanded, and *cf. Princ.* 136 'we want a sense . . . proper to know substances withal.' This confirms my reading 'withal' (Fraser and Johnston read 'with'). Locke discusses our inability to apprehend substance in II xxiii 8*ff*., and Berkeley seems to be referring to sect. 12, where Locke speculates on the consequences of an alteration in our senses permitting us to see the inner constitution of sensible things. It is 'incongruous' to suppose substance an object of sense and at the same time define it as an unknown substratum.

602. 'Genera and species are in order to naming,' *Locke* III vi 39, *cf.* II xxxii 6–8; on abstract ideas and their source in language, see 318*n*.

603. By taking attention away from the internal marks such as faintness and confusion; on optic angles, see 73*n*; for the effect of the invention of 'glasses,' see 63*n*.

604. On existence, see 408*n*.

605. Locke is writing on 'Doubtful propositions taken for principles.' Berkeley holds (*Princ.* 118) that in the mathematicians' 'principles there lurks some secret error' common to them with the rest of mankind, *viz.* abstract ideas, and the existence of objects without the mind.

606. The view that things are ideas and ideas things is essential to Berkeley's immaterialism. Representationism, he holds, leads to scepticism (see 79*n*), because it postulates reality out of range of our ideas; on truth, see 554*n*.

607. 608. Further studies of words, see note on 178; in 495 Berkeley calls it absurd to use words for recording thoughts; on the Solitary Man, see 566*n*.

609. Because it involves distinguishing between *esse* and *percipi*, see 571*n*, 585 ; on substance, see 80*n*.

610. 611. 611a. 612. 613. Arguments against Locke's doctrine of uneasiness (see 145*n*) from the conception of the supernatural will (as in 357) and from the nature of the human will (see 131*n*). For Locke's ' proofs,' see *Essay* II xxi 33*ff*. On God, see 107*n*.

614. 614a. 615. 615a. Studies in will, understanding, and their objects, see 362a *n*. The reading ' alter'd ' is certain ; Fraser and Johnston read ' allow'd.' Berkeley's altered opinion on the point is expressed in 848.

616. *Cf*. 879. Similarly Locke (II xxi 25) says it is an absurd question ' whether a man be at liberty to will which of the two he pleases, motion or rest ? ' On the freedom of the will, see notes on 131 and 149.

617. Abstract principles adopted by physicists to explain change. The list corresponds with that of Cheyne (*Philos. Principles of Nat. Rel.* p. 3) ' That there is no such thing as an Universal Soul animating this vast system according to Plato, nor any substantial Forms according to Aristotle, nor any omniscient radical heat according to Hippocrates, nor any plastick virtue according to Scaliger, nor any hylarchic principle according to Henry More, is evident. . . .' The list is, in part, incorporated into the *Three Dialogues*, p. 479. On *anima mundi*, see *Siris*, 276–84, 322. On Hippocrates, see *Siris*, 204 ; on substantial forms, see *Mot*. 8*ff* ; on hylarchic principle, see *ib*. 20.

618. Duplicate of 361, where see note.

619. Berkeley considers that the weight of a stone may be equally well, or equally badly, explained in terms of its inertia as in terms of the earth's attraction ; physical force, for him, signifies nothing ' besides the effect itself,' *Princ*. 103. My reading ' attractrix ' is confirmed by Berkeley's ' vim lunae attractricem,' *De Aestu Aeris*, *Fraser* IV, p. 49.

620. Berkeley expresses his doctrines in *Princ*. 1–33, 85–156, and states and answers Objections *ib*. 34–84.

621. Locke (II xxi 5, 15) distinguishes between will and volition; he defines *will* as the mind's power of ordering the consideration (or otherwise) of an idea, or of preferring a motion to rest (or *vice versa*); he defines volition as 'the actual exercise of that power.' Berkeley accepts the distinction (see 699), but, as in 635, he questions the definitions accompanying it; he regards them as circular; on power, see 41*n*; on will, see 131*n*.

622. 'Extension is a different thing from thought,' *Maleb.* I x. The Cartesians regarded the soul as unextended, but united to the extended body, and extension as existing in material substance. In the latter portion of the *CPB* (*e.g.* 878), and in the *Principles* Berkeley, while denying, as in this entry, unthinking substance (see 80*n*), makes extended ideas distinct from mind (see 14*n*); but here evidently he is prepared to regard extension, not only as dependent on the mind, but as a mode of mind; see next entry.

623. Fraser and Johnston read 'thinking good actions'; this reading means nothing; the comma and the 'not,' as in my text, are certain, and the 'active' is highly probable. I take the entry to be a comment on the previous entry, being in effect an attempt to justify his refusal to distinguish extension from thought. Berkeley is emerging from his early panpsychism (see 24*n*); he is awaking to the danger of making extension a mode of mind; but he has not yet reached the position of the *Principles*, according to which thinking things and unthinking things are the two mutually exclusive heads of reality, and here, as in 286, he uses the distinction between active and passive mind in an unsuccessful attempt to ease the difficulty.

624. Further argument against Locke's doctrine of uneasiness, see 145*n* and *Locke* II xxi 39*ff*. Hecht says the text is corrupt; but that is a mistake. The text and its meaning are clear. The argument is an enthymeme, the conclusion, 'Therefore the greatest uneasiness does not determine the will,' being left to the imagination. On will, see 131*n*.

625. Berkeley would have to recognize that many theists accept the existence of matter, and in the *Principles* he is content to argue that atheism finds support in matter (*e.g.* sect. 35); but this entry represents, I think, his true view, *viz.* that when matter is exactly defined, it becomes an anti-God, and that

therefore the thinker must choose between God and matter, and cannot have both.

626. 627. 628. 629. 630. 631. Further studies in the freedom of the will (see notes on 131, 149, *Alc.* vii 16*ff.*); difficulties are traced to the ambiguity of words, see 178*n*; Locke's doctrine of uneasiness (see 145*n*) is rejected in favour of 'complacency,' *i.e.* a prior state of hedonic indifference, which would allow scope for a spontaneous act of will. Finally (631) Berkeley glances at the objection that his own doctrine does not allow true freedom. He certainly conceived spirit as a free activity; but (not having his 'Part II,' on ethics, see 508*n*) we do not know how he would work out the conception in the sphere of human action.

632. Marked 'N' (natural philosophy) the entry is concerned with the nature of physical contact, and may form part of a discussion of solidity (*cf.* 78 and *Locke* II iv) or of action at a distance. Distance for the immaterialist being perceived distance, contact must be for him perceived contact, contact relative to the visual faculty of the observer. Thus what the physicist would call 'absolute contact' is ruled out.

633. 634. Berkeley's more controversial works, *Alciphron*, the *Analyst*, and the *Defence of Free-Thinking*, employ with effect the weapon of satire; his early works use it rarely, if at all. For his resolve not to give offence, see 209*n*. On Nihilarians, see 337*n*; this term does not occur in the *CPB* after this entry, nor in the publications. For the term as part of my argument against Johnston's transposition of the text, see my Introduction, p. xxii.

635. A reference to Locke's distinction (II xxi 5) between will and volition, the will being a power to begin or end actions 'barely by a thought or preference of the mind ordering . . .', and the volition 'the actual exercise of that power'—see 621*n*; on will, see 131*n*.

636. On the fault of language, see 178*n*; on 'clear & determinate,' see 537*n*.

637. The existence of thinking substance, finite as well as the infinite, is an integral part of the Berkeleian philosophy (*Princ.* 36 *et passim*). Why then

does Berkeley hesitate about it here? Because his psychology was still in a fluid state, see 14*n*; he had not yet decided finally to make the soul active, and he felt the difficulty about unknown substance (see 80*n*) which he discusses in *Dials.*, pp. 449*ff.*, *viz.* If unknown spiritual substance be granted, why not grant also unknown material substance?

638. 639. Locke's 'infallible rule' (IV viii 13), *viz.* no words without distinct ideas, is here set forth with great emphasis, see 356*n*; *substance* is probably the word in view, as in the previous entry. Berkeley then notices Locke's companion principle, 'no knowledge without ideas,' and applies it to the imagination. Soon after this he abandons both principles, largely because of the need to find room for knowledge of the soul without idea.

'banters,' *cf.* 'abused' (579) and *Draft Introduction* (*Fraser* III, p. 361) where Berkeley says there was a time when he himself was 'banter'd and abus'd by words.'

640. 641. For 'distance' (after 'like'), perhaps read 'difference' or 'difference and distance.' Locke (II ii 3) and Malebranche (I vi) also use the comparison of the worm. Berkeley is considering our knowledge of God in the light of Locke's two principles (see 638–9). Later on (782) he decides for knowledge of God without idea; for God being active and idea passive, there can be no idea of Him; but here he speaks as if God were unknown or known only by analogy. He is, however, not satisfied with that position, and reminds himself that he is 'embrangled' (*cf. Princ.* 98 for the term) in words. The terms *difference*, *number*, and *known* are explained by the context; for Berkeley is reflecting on the difference between the number of ideas known to God and to man; the term *old* comes in strangely; it must be an echo of *Locke* II xxvi 4, where it is used as an illustration of a relative term. On God, see 107*n*.

642. *Cf.* 'Having remov'd the veil of words,' *Draft Introduction* (*Fraser* III, p. 380), where the metaphor appears frequently. 'mist,' *cf. ib.* p. 380 and *CPB* 567. On 'Scholemen & Mathematicians,' see notes on 327, 492.

643. The contrast between active and passive leads Berkeley to deny an idea of the will, but he has not yet reached his final doctrine of will and under-

standing,' see 362a *n*. After 'active' there is in the MS. what seems to be a short word like 'things.'

644. On thing and idea, see 369*n*; 'much wt . . . the same,' *i.e.* much the same, *cf. Locke* II xii 1, 'man's power . . . much-what the same in the material and intellectual worlds.'

645. 646. On volition and perception, see notes on 131 and 362a; on existence, see 408*n*.

647. Berkeley is arguing that the succession of ideas which is time (see 4*n*) is more marked in hearing, smell, and taste, because their data are apprehended successively, and not simultaneously as are those of sight and touch. On the comparative distinctness of the data of the various senses, see 240*n*. For the 'diversity' of sensations and volitions, *cf.* 'actions and ideas that diversifie the day' (*Princ.* 97).

648. On the Solitary Man, see 566*n*; on number, see 104*n*.

649. The only mention of innate ideas in the *CPB*. For the curious phrase 'Ideas created with us' *cf. Malch.* III ii 4, where the opinion is refuted, 'That all ideas are created with us.'

It would be unsafe to argue from this entry that Berkeley differed seriously from Locke on the native endowment of the mind, even though Berkeley asserts innate ideas which Locke denied; for the two thinkers mean different things by the term 'idea.'

Berkeley does not deal with the question in his earlier works; but in *Alc.* I 14 he discusses natural endowment, and accepts native *dispositions* to know, see also *Siris* 308–9. Both these passages have left their mark on the fine account of our 'inbred dispositions' in his sermon on the will of God, preached shortly before his death. Here is an extract, 'That there are appetites and aversions, satisfactions and uneasinesses, inclinations and instincts originally interwoven in our nature, must be allowed by all impartial and considerate men' (*Hermathena*, Vol. XXII, 1932, p. 30). I have shown (*ib.* p. 9), by comparison with the draft sermon published by Wild, that Berkeley had Locke's doctrine of innate ideas in view.

650. 651. 652. Three entries dealing with Locke's doctrines that 'thinking is the action, not essence, of the soul' (II xix 4), and that 'the soul thinks not always' (II i 10). These views conflict with the *esse est percipere*, and Berkeley maintains, 'The soul always thinks. And in truth whoever shall go about to divide in his thoughts or abstract the existence of a spirit from its cogitation, will, I believe, find it no easy task' (*Princ.* 98). With regard to sleep and trances which appear to support Locke's view, Berkeley teaches that these are not gaps in the consciousness of an existing mind, because mindless time-intervals or gaps in time do not exist; for if there is no succession of ideas there is no time, see 4*n*. This teaching agrees with the cryptic statements of 83; but, as I have shown in the note there, it is doubtful whether he held for long the paradox of repeated annihilation.

653. 654. On Locke's doctrine of uneasiness, see 145*n*; on the freedom of the will, see notes on 131 and 149; on 'determine,' see 627.

655. Molyneux, *Dioptrics*, p. 199, says that Romer from observing Jupiter's satellites has proved that light takes a second to travel 9,000 miles, and that Newton asserts that light takes about 10 minutes to come from the sun to the earth. Berkeley regards such statements as involving unperceived time, motion, and existence, and therefore as absurd; on time, see 4*n*.

656. The entry is obscurely phrased; but it is clear that Berkeley is equating, as he often does, unperceived existence, duplicated existence, and external existence. The marginal letter *S* (Soul or Spirit) makes it probable that he is on a point of psychology, rather than metaphysics, and I think he is really using his new conception of existence to explode Locke's distinction between ideas of reflection and ideas of sensation; he is arguing that the notion of external or unperceived existence leads men to the untenable (in his view) distinction between the perception and the thing perceived, just as in *Princ.* 3 he argues that there is no difference between 'there was an odour' and 'it was smelt'; see 571*n* and *Dials*, pp. 405*ff*. On the 'act of the mind perceiving,' see 808*n*.

657. 657a. 658. 659. 660. 661. 661a. 663. 665. On idea and will. An idea, for Berkeley, is passive, the will active; therefore an idea cannot be or be

like the will; or, as in 643, the will cannot be the object of thought; see notes on 131, 154, 478. Berkeley returns repeatedly to this question in the later part of the *CPB*, showing the importance he attached to it and the difficulty he found in it.

Note in 657a the recognition, as in *Princ.* 33, that the term *idea* is more proper to the imagination (see 531*n*). Berkeley opposes the representative idea of sense; for his idea of sense *is* the thing, never the copy; but his idea of the imagination is representative, a copy of reality. On idea and thing, and 'idea of,' see 115*n* and 369*n*; on *thing* and *is* as general, *i.e.* abstract, terms, see notes on 318, 401.

In 659 the first part of the consequent is Berkeley's usual teaching, but how are we to understand the second part, Nothing which does perceive wills? It seems inconsistent with the teaching of the *Principles* that the will is one aspect of the 'simple, undivided, active being' which perceives ideas and operates about them (sect. 27). The explanation is that when he penned this entry, he was still at the transition period, and was disposed to take perceiving mind as passive and identical with its contents.

In 661 Berkeley again examines (see 178*n*) the Lockian principle, which he at first accepted but later rejected, 'All significant words stand for ideas'; as instances of words that do *not* stand for ideas, he takes words that denote activity, *e.g.* will, and particles. Locke has a short chapter on particles (III vii), meant to lessen the rigidity of his doctrine of ideas and words; but Berkeley finds it inconsistent with that doctrine, and draws support for his own view from Locke's statement that particles are 'all marks of some action or intimation of the mind.' On 'any other Intelligence,' see 410*n*.

662. 664. On Berkeley's studies in colour composition, see 151*n*; on simple ideas, see 53*n*; for the two sorts of compound, mechanical and chemical, see 721, and Locke's note appended to *Essay* II xv.

The old idiom 'being' for 'seeing that' occurs again in 833 (as corrected); Hecht, not understanding this archaism, marks a lacuna in the text.

666. 668. Locke (III iii) begins his study of general terms from the principle that all things that exist are particulars; in IV vi 2 he recognizes knowledge of particular truths and knowledge of general truths, and goes on to say that our knowledge begins in particulars and spreads by degrees to generals; but

in the passage here under consideration (note the use of the same syllogism) *viz.* IV xvii 8, Locke writes, 'Every man's reasoning and knowledge is only about the ideas existing in his own mind, which are truly, every one of them, particular existences.'

Berkeley accepts the particularity of all ideas, and uses it as an argument against general ideas here and in 318 and 497. In *Princ.* Introd. 15 he outlines his conception of universality accruing to things, names, or notions which are 'in their own nature particular.' For further criticisms of universals in syllogisms, see 698 and 728–9; on abstract ideas, see 318*n*.

667. On particles and ideas, see 661*n*; note the reading 'on't' (*i.e.* 'of it'); Fraser and Johnston read 'really.'

669. Having no ideas of will, we have no ideas of its operations, and therefore no ideas of moral actions. Thus his argument brings Berkeley into conflict with Locke's theory of ethics (IV iii 18), which lays down that morality is capable of demonstration, and that 'from self-evident propositions, by necessary consequences, as incontestable as those in mathematics, the measures of right and wrong might be made out.' Locke instances, 'where there is no property, there is no injustice,' and 'no government allows absolute liberty,' and says that if you establish the ideas property, injustice, government, and liberty, you may reach mathematical certainty of the truth of these propositions.

Berkeley accepts this theory, or assumes it, in the early part of the *CPB*, see 162–3, 239, 336; but here and in 683 he questions it on the ground that the *ideas* on which it depends are non-existent. What his final conclusion is, is doubtful. In 776 he speaks of 'my Doctrine of Certainty,' and from 690, 705, 729, 730, 731, 732, 734, we may gather that his doctrine was one of verbal certainty, *i.e.* certainty as to the use of words, as distinct from Locke's certainty about ideas. But this limited doctrine does not seem to have satisfied Berkeley for long, and in 731a he asserts that real certainty is of sensible ideas, and that 'I may be certain without affirmation or negation.' In 755 he writes that morality might be demonstrated as 'mixt Mathematics,' *i.e.* that ethics has as much claim to mathematical precision as *e.g.* dioptrics, no less and no more. In the *Principles* (100) he denies abstract ideas of justice and virtue, but he

does not deal directly with the question of demonstration in ethics. On demonstration, see 163*n*.

670. 671. Existence for Locke (II vii 7) is a simple idea (see 53*n*) conveyed by all the ways of sensation and reflection. Berkeley denies that he has the idea, and simple ideas being indefinable in words (*Locke* III iv 11) he denies that others can convey the idea to him, see 746; on ideas of reflection, see 571*n*; on existence, see 408*n*. Note the correct reading 'such' in 671.

672. 672a. 673. 674. Again, as in 612–5 and 644–6, Berkeley is trying to clear up the relation between 'the unknown substratum' (see 80*n*), or will, and its volitions and ideas. He distinguishes sharply between active beings and passive, *i.e.* spirits and ideas; he takes note of the active element in perception, using the illustration of opening the eyes, as in *Princ.* 29, and he finds volition and existence inseparable from perception. For a general note on the faculties in Berkeley's tentative psychology, see 362a *n*; on the will, see 131*n*. 'their existence' (674), *i.e.* the existence of the two-fold 'things' (673).

675. The problem of the divine experience becomes acute for Berkeley, especially in respect of pain; for pain involves change and imperfection. The problem is not touched in the *Principles*; but in the *Three Dialogues*, pp. 458–9, he deals with it, contrasting infinite spirit with finite, asserting that God knows our pain and sometimes causes it, but denying that He himself suffers pain. On God, see 107*n*.

676. 677. These two entries are combined and made more explicit in 853. The three recognized branches of philosophy were, (1) natural philosophy, or physics, (2) pure mathematics, (3) moral philosophy, including ethics, politics, and metaphysics. Berkeley's plans for his books were connected with this division; he seems to have intended to cover much, if not all, of the field (see 508*n*); it is certain that he planned a work on ethics and wrote a good deal of it (his lost Part II); he speaks of a third book in 583 and 853, which was to deal with natural philosophy; but whether a work on mathematics was originally designed (probably, see *Princ.* 125), and whether the *Principles* was intended as an introduction to the whole *corpus* we cannot say for certain.

The marginal signs of 676 and 853 should be compared, and it will be seen that the sign X prefixed to over three hundred entries marks the entries that deal in some way with mathematics, or that at any rate do *not* deal with the other heads, morality (Mo.) and natural philosophy (N).

There is clearly a reference to Locke's section (IV i 3*ff.*) on the fourfold agreement of ideas, where relation is associated with mathematics and co-existence with physics. On relation, see 540*n*; on coexistence, see 403*n*; on 'Including,' see 690*n* and *Princ.* Introd. 22.

678. In spite of his acknowledged debt to the *Essay* and his esteem for its author (see 567*n*) Berkeley regards Locke as his main antagonist. There is a similar entry in another MS. (39304) in the *Berkeley Papers* in the British Museum, which uses the metaphor of mountain and molehill. Fraser prints it at the end of the *CPB* in his (1901) edition of the *Works*, Vol. I, p. 92. The 'I' after 'acknowleg'd' probably means 'Introduction.'

679. Echoed in *Princ.* Introd. 4. The Introduction is prominent in this part of the *CPB*.

680. The same request is made in *TV* 120, and in the Prefaces to the *Principles* and the *Three Dialogues*.

681. Locke (II xxvii 19) writes, 'Personal identity consists, not in the identity of substance, but, as I have said, in the identity of consciousness; wherein if Socrates and the present mayor of Queenborough agree, they are the same person.' Locke (*ib.* 13) thinks it theoretically possible that 'the consciousness of past actions can be transferred from one thinking substance to another,' and thus that a man could be conscious of what he had never done. These anomalies are avoided, Berkeley thinks, by placing personal identity in the active spirit, whether viewed as will (*cf.* 194a) or as understanding (mind, see 192*n*); on will and understanding, see 362a*n*; on consciousness, see 200*n*: for 'etc' Fraser and Johnston read 'surely.'

682. *Cf.* 'what a number of very great and extraordinary men have gone before me . . .' (*Princ.* Introd. 5) and the corresponding section of the *Draft Introduction* (*Fraser* III, p. 359) which adds *prima manu* 'and miscarry'd.'

683. 684. On ideas of moral actions, see 669*n*. Locke's theory, there outlined, has resulted, Berkeley here suggests, in unnecessary difficulties about demonstration. At this stage he himself believed in verbal certainty.

685. Berkeley explains his choice of the term *idea* in *Princ.* 39, not in the Introduction, see 369*n*.

686. 686a. On Malebranche's influence, see 230*n*; 686 is an epitome of Malebranche's '*Illustration*' (*excursus*) on, *Tis very difficult to prove the Existence of Bodies* (for an analysis, see my *Berkeley and Malebranche*, pp. 58–61), which is referred to again in 800, 801, 818, and perhaps in 265. This *Illustration* is a curious piece of reasoning; its general trend is towards proving the non-existence of bodies, but it advances the three proofs of their existence which Berkeley here mentions, and with which he deals as follows: (1) the proof from Scripture, in *Princ.* 82, (2) from 'that poor *possibility*,' in *Princ.* 75, and (3) from the propension, in *Princ.* 54–7. Berkeley's erased remark on this alleged propension should be noted. He erased the words, no doubt, when he came to recognise knowledge without ideas, *i.e.* knowledge of spirits.

The *verso* addition 686a probably records a development of Berkeley's thought; for he here says in so many words that he had second thoughts about the existence of bodies, *cf.* 517; at first he thought they did not exist, and that all was mind (see 24*n*); later, as in this entry, he explicitly takes up the position of the *Principles*, *viz.* that there are bodies, distinct from mind, though dependent on mind, and that these bodies are not material, but sensible.

687. 688. For Berkeley's attack on abstract ideas, see 318*n*; 'the killing blow' is the criticism of Locke's 'absurd triangle' (IV vii 9), contained in *TV* 125 and *Princ.* Introd. 13–16, where it comes 'at the last.' In *Geometry No Friend to Infidelity* (1734) Philalethes (Dr. Jurin) argued that Berkeley had misrepresented Locke's argument here; Berkeley replied vigorously in his *Defence of Free-Thinking*, 45–8. On Locke's candour, see 567*n*; 'see with my own eyes,' *cf. Locke* I iv 23.

689. If by 'thing' be meant a passive object willed or perceived by God or man, Berkeley accepts the term, and he calls objects of sense ideas and things

indifferently. But if by 'thing' be meant a material archetype of our ideas, he rejects it and all that it stands for. On thing and idea, see 369*n*.

Archetypes are mentioned in the *CPB* only here and in 823; in the *Principles* they are mentioned in sections 9, 45, 90, 99; and in the *Three Dialogues* on pp. 416, 418, 425, 427, 437, 456, 468, 475. They are probably referred to in the *Principles*, sections 53, 70, 74, 76, 91, 148, and in the *Three Dialogues*, pp. 428, 447, 452, 453, 480. I have analysed these passages in my article *The Philosophical Correspondence between Berkeley and Johnson*, *Hermathena*, LVI (1940), pp. 99–105, concluding that Berkeley invariably denies material archetypes, nowhere denies immaterial archetypes but nowhere explicitly affirms them, that a few passages accept them as a legitimate hypothesis, and that a few passages can hardly be reconciled with a serious belief in archetypes. Johnson had asked some pertinent questions about archetypes, to which Berkeley replied briefly.

690. 691. On demonstrating morality and Locke's instances, see 669*n*. The dictionary of ethical terms was, no doubt, suggested to Berkeley by Locke's section (III xi 25) on a dictionary of natural history terms. Berkeley hoped that such a dictionary would fix the meanings of ethical terms and enable them to be used with precision. He illustrates his meaning with the proposition (705), 'God Ought to be worship'd.' *Inclusion* is mentioned again in 677 and 853 as part of the method of demonstration; presumably the definitions in the dictionary would be such that, for instance, the comprehension of *free* could be compared at a glance with that of *man*. There is a good discussion of demonstration and inclusion in G. A. Johnston, *Development of Berkeley's Philosophy*, pp. 292*ff*.

692. Read 'aversion' and 'Spirits' for 'exertion' and 'spirit' (Fraser and Johnston). As the marginal letter shows, Berkeley is on the distinction between primary and secondary qualities, and is asking why thinkers are ready to internalize the latter while externalizing the former; he replies that some qualities, *e.g.* heat and cold, tastes, etc., directly affect volition through our sense of pleasure and pain, and are therefore felt as within the mind; *cf. TV* 59 for a similar argument with regard to visible and tangible figure and magnitude.

693. Berkeley had hopes at this period of eliminating error (see 816*n*) by aid of wordless thought, see 178*n* and 719.

Locke's doctrine of certainty is under discussion. Locke (IV ii) teaches that the greatest certainty is intuitive, the immediate perception of the agreement or disagreement of ideas ; next in rank comes demonstrative certainty, which depends at every step on intuition, but is liable to err, especially in long deductions, owing to the defects of memory when dealing with intermediate ideas. Lastly there is sensitive knowledge, which yields no certainty of external existence, but only of our own feelings of pleasure and pain.

Berkeley became critical of this account (see 669*n*), and rejected it, reversing the verdict on the senses ; in 740 he places certainty in the senses ; but he keeps clear of sensationalism ; for we can be certain of what is not actually perceived, such as the future judgement, 776–7, and the existence of God, 813. For the change of view on demonstration, see 163*n*.

694. Apparently the ' cure for Pride ' is the doctrine of man's ' absolute and entire dependence ' on God, see *Princ.* 149.

695. On the infinity of space, see 135*n* and *Locke* II xvii 4*ff.* ; on eternity and infinite space, see *Locke* II xvii 20 ; on the possibility of matter's thinking, see 573*n* and *Locke* IV iii 6. The dangers attending these doctrines are dealt with in *Princ.* 117, 133 ; but Locke is not specifically mentioned.

696. Reappears with modifications in *Princ.* Introd. 25 ; on the fallacy of words, see 178*n* ; on truth in the mind, see 554*n*. ' Gibberish, Jargon,' *cf. Draft Introduction, Fraser* III, p. 378.

697. 698. Studies in Locke's doctrine of certainty by intermediate ideas ; see 693*n*. Locke speaks of algebra in IV iii 18, 20, and IV xii 15 ; for Berkeley on algebra, see 382*n* ; on sagacity, see *Locke* IV ii 3 ; on demonstration, see 163*n*.

699. For Locke's distinction between power (*i.e.* the will) and volition, see 621*n*.

700. 701. Locke (II xxiii 30) says that the substance of spirit and of body are equally unknown to us ; hence Stillingfleet (see 517*n*) charged him with almost discarding ' substance out of the reasonable part of the world.' For Berkeley, there is no substance (see 80*n*) other than spirit ; and so when,

as here and in 512, he affirms the substance of body, he is using the term *substance* in the non-technical sense, expounded in 724; thus the substance body means simply the sensible ideas that compose the body. The second part of 701 is at variance with Berkeley's full official teaching, *viz.* that we know spirit, but not by idea. With 'purus actus' *cf.* 788, 828, 870.

702. On words, see 178*n*.

703. On abstract ideas, see 318*n*; on 'The Vulgar,' see 405*n*.

704. Locke (II i 10) says that it is not 'any more necessary for the soul always to think, than for the body always to move.' Berkeley holds that the soul always thinks (see 83*n*), and he here rejects Locke's comparison between soul and body.

705. Locke (I iv 7) analyses this principle in order to show that though of first importance it is not innate; Berkeley takes it as an instance of an ethical principle suitable for demonstration—see notes on 163 and 690.

706. 707. 708. 709. A return to the much debated questions of will and understanding and idea (see notes on 131 and 362a); Berkeley insists again that there can be no idea of will, and that the will is spontaneous, and is not determined by uneasiness (see 145*n*). Locke is more guarded than would appear from the statement in 706; he writes (II ix 1), 'In bare, naked perception, the mind is, for the most part, only passive.'

Philippe van Limborch (1633–1712), Arminian theologian of Amsterdam, was an advocate of religious toleration and a friend and correspondent of Locke. Their correspondence forms more than half of *Some Familiar Letters between Mr Locke and several of his Friends*. The book was published in 1708, and therefore, as Prof. Aaron has pointed out, this entry helps to date this portion of the *CPB*.

The quotation is from Locke's letter (p. 479) dated 21st May 1701; Locke is arguing that will and desire are widely different, but are commonly confused, because will rarely acts except at the impulse of desire.

710. It might be objected to Berkeley's doctrine of the heterogeneity (see

28*n*) of sight and touch that visible and tangible *minima* (see 59*n*), being *minima*, are indistinguishable. He here tries to meet the objection.

711. *Cf.* 878 where extension (see 18*n*) is stated to be 'no Property of the Mind.' 'Sensible' is added to cover both visible and tangible extension.

712. 713. 714. Here Berkeley's psychology reaches its final form, and, as in the *Principles* (1, 2, 27 *et passim*), the perceiving active being, *viz.* 'mind, spirit, soul, or my self,' is set over against passive being, *viz.* the ideas. Will (see 131*n*) and understanding (see 362a *n*) become abstract aspects of the active being. The term *person* (see 25*n*) is not used in the *Principles*. Berkeley uses it freely in the early part of the *CPB*, but he decides to avoid it owing to its use in the Trinitarian and Christological *formulae*. The idea-things are effects of the will of God, see 403*n*; on God, see 107*n*; on unity, see 75*n*.

715. 716. The doctrinal difficulties connected with the term *person* remind Berkeley of the need to conciliate ecclesiastical opinion (see 517*n*). He does not, in point of fact, speak favourably of the Schoolmen, though he shows restraint in criticizing them, see *Princ.* Introd. 17, 20. These cautious resolves receive point from the fact that shortly after his ordination as priest Berkeley was prosecuted by Archbishop King in his ecclesiastical court on the charge of receiving irregular ordination. Berkeley's dignified letter of explanation, dated 18th April 1710, is extant in the *King Papers* in the Trinity College library (printed by Sir C. S. King in *A Great Archbishop of Dublin*, 1906, p. 121).

717. Note the corrected reading; '2d & 4th' (Fraser and Johnston) admits no explanation, and is certainly not in the MS. I have compared the '1st' with the same figure in 571; they correspond exactly.

Berkeley was not sympathetic towards Locke's attack on innate ideas in Book I, and he objected strongly to Locke's doctrine of words (as signs of abstract ideas), of which (in whole or part) Locke himself says, 'it is one I thought not of when I began to write' (III v 16). Berkeley may have had these actual words in mind; in any case it is clear from the marginal sign *I*, crossed out and restored, that Berkeley is on abstract ideas; he is urging that

had Locke begun with a study of words, as in Book III, and had he studied them to better purpose, he would not have been led into his doctrine of abstraction ; note in particular Locke's argument in III iii 6, attacked in *Princ.* Introd. 11.

718. My reading ' beards ' is certain ; Fraser reads ' weeds,' Johnston ' words,' Hecht, apparently, ' wands.' Berkeley is alluding to Locke's instances (IV x 9) of material things, ' the clippings of our beards and parings of our nails.'

719. On certainty and laying aside words, see 693*n* ; on demonstration, see 163*n*.

720. This entry well illustrates the theological distinction between implicit and explicit faith, and forms a complete refutation of the charge of deism recently brought against Berkeley. It should be read in connection with Toland's *Christianity not Mysterious* (1696). Toland's visit to Dublin was long remembered there. On Scripture and revealed religion, see notes on 281 and 584 ; on transubstantiation, see 350 and *Princ.* 124. For ' fact ' (Fraser and Johnston) read ' Text,' *i.e.* text of scripture.

721. On colour composition, see 664*n*. The twofold ' Complexation ' refers apparently to the two sorts of composition discussed in 664.

722. On length without breadth, see 21*n* ; any general figure, for Berkeley, is a particular figure with its particularities disregarded ; this principle is part of his explanation of ' abstract ideas.'

723. One of his alternative theories of the prehuman period of the Mosaic week, see 60*n* and *Dials.*, p. 473 ; on intelligences, see 410*n*.

724. For Locke on substance, see 601*n* ; for Berkeley's uses of the term, see 80*n*.

725. Probably a note on 724 explaining why material substance, as distinct from sensible things, is supposed to have existence (see 408*n*), and tracing the error to the doctrine of abstract ideas ; see 318*n*.

726. Distance and magnitude are the subjects, respectively, of the first two divisions of the *Theory of Vision*; Berkeley tries to show that writers on optics (*cf.* 207) pay too much attention to angles, etc., too little to confusion, etc., and neglect the heterogeneity of sight and touch.

727. 727a. Berkeley concedes that the Solitary Man (see 566*n*) on acquiring speech would learn new sounds and new complex ideas, but denies that he would acquire abstract ideas, see 318*n*.

728. 729. 730. 730a. 731. 731a. 732. A further examination of Locke's doctrine of certainty by intermediate ideas; see notes on 163 and 693. On identical propositions, see 592*n*; on knowledge without ideas, see 312*n* and *cf.* *Maleb.* III ii 7, 'There are things we see without ideas.'

Fraser omits 731a; Johnston omits from it the words 'pro hic & nunc,' which add point to Berkeley's insistence upon sensible certainty. Note the alteration in the marginal signs, transferring this group from the Introduction to Part II.

733. Berkeley is considering Locke's views on relation, see 540*n*.

734. Berkeley's views on demonstration (see 163*n*) altered towards the end of the *CPB*; he seems here to be contrasting the verbal demonstrations of ethics (see 669*n*) with the false demonstrations of physics. In ethics, he held, you can demonstrate if you can define your terms, but in physics, not so, for there the laws of nature are concerned; and they are the ways in which God *usually* (but not *necessarily*) acts; see 144*n*.

735. The *veritates aeternae* are mentioned again in 831, in connection with Spinoza; they were a commonplace of the Platonic tradition. Norris, *Theory of the Ideal World* (1701), Part I vi sect. 2, discusses them, and shows how they result from the divine Ideas.

But Berkeley is probably considering Locke's account of them; for this entry is echoed in the *Draft Introduction* (*Fraser* III, p. 370), 'What becomes of those general maxims, those first principles of knowledge . . . all w^{ch} are supposed to be about abstract and universal Ideas?' Locke (IV xi 14) explains the *veritates aeternae* as general propositions which having been once made out

about abstract ideas 'must needs be eternal verities.' They 'vanish,' for Berkeley, because the abstract ideas, on which Locke makes them depend, vanish.

736. 737. On words, see 178*n* ; 737 is an echo of *Locke* IV xvii 4, and appears *verbatim* in the *Draft Introduction* (*Fraser* III, p. 380), where the notion of words as dress, veil, etc., is very common.

738. On Berkeley's principle (*esse est percipere*), Descartes' '*cogito ergo sum*' becomes *cogito ergo cogito*.

739. 740. A criticism of Locke's doctrine of certainty (see 693*n*) and of his four sorts of agreement of ideas (IV i 3*ff*.). Identity, diversity, and real existence, if taken for anything over and above the perceived idea, are, for Berkeley, abstract ideas, and therefore the knowledge founded on them 'vanisheth.' Relation (see 540*n*) is, for him, an 'Obscure ambiguous term' (733) yielding only nominal knowledge, as in mathematics ; but coexistence is a true and a large field of knowledge, a knowledge of the properties of things resting on the customary connection of sign and thing signified. If a certain yellowness, for instance, coexists with that collection of sensible ideas called gold, on seeing the yellowness I expect 'the power to remain in the fire unconsumed' ; and that is the meaning of saying we *know* that gold is fixed. On the senses, see 317*n* ; on the term *mob*, see 405*n*.

741. If this entry has any relevance to Berkeley's books, must it not refer to the fulsome Dedication of the *Theory of Vision* to Sir John Percival—which must have made his young friend 'wonder' ?

742. 'overtake Truth,' see 521*n* ; 'my shortsightedness,' no doubt metaphorical, *cf*. 774 ; the metaphor is reproduced in *Princ*. Introd. 5.

743. 744. 745. A discussion of free will (see 149*n*) based on the Locke-Limborch correspondence (see 709*n*). Free will is the main topic of this correspondence from p. 474 to the end of the volume, and 'in this place' probably refers to p. 512, where Locke reduces his views to ten theses, beginning *Homo est agens liberum* ; on judgement and volition, see 362a *n* ; on indifference and uneasiness, see 143*n* and 145*n*.

In 744 for 'Both' (Fraser and Johnston) read 'Res,' *i.e. Respondeo*, for which Berkeley has several abbreviations in his *Arithmetica*, *e.g. Resp.*, *Respon.* 'My,' the capital letter stresses the spontaneity of the active spirit in thought and will.

746. An argument against Locke's account (II vii 7) of these simple ideas (see 53*n*) ; on unity, see 75*n* ; on existence, see 408*n* and 671*n*.

747. An attack on what Berkeley calls 'the excuse' (see 292*n*), *i.e.* the finiteness of our faculties. This entry is followed closely in the *Draft Introduction* to the *Principles* (*Fraser* III, p. 357), and has left its mark on the Introduction as printed, sect. 2.

748. In criticism of Locke's doctrine (IV vi 13) that general knowledge 'consists barely in the contemplation of our own abstract ideas.' The entry is followed closely in the *Draft Introduction* (*Fraser* III, p. 371 *prima manu*). 'sheaves & bundles,' based on *Locke* IV xii 12, 'In the knowledge of bodies, we must be content to glean what we can from particular experiments ; since we cannot, from a discovery of their real essences, grasp at a time whole sheaves, and in bundles comprehend the nature and properties of whole species together.'

749. A speculation on the faculties of superior spirits (see 410*n*), as in 835 and *TV* 84. Read 'spheres' not 'systems' (Fraser and Johnston) ; on the visual sphere, see 97*n* ; on the *m.v.*, see 59*n* ; on the enlargement of sight, see 175*n*.

750. Berkeley's study of words (see 178*n*) had made him aware of their misuse ; now as in *Princ.* Introd. 21, he shows himself aware also of their 'excellent use.'

751. 'banishing Metaphisics,' the phrase should be read in the light of 207 ; Berkeley was against the arid metaphysics of the Schools ; but of course he recognized speculative metaphysics (*e.g.* 162–3, 239). His own philosophy is a metaphysic ; but he claims, not without reason, that it is a philosophy of commonsense ; see *Princ.* 88, also the *Three Dialogues*, which literally begins and ends with an appeal to commonsense.

752. This is the only reference in the *CPB* to our knowledge of other minds; the problem is dealt with briefly in *Princ.* 145; *cf. Dials.* p. 450.

753. Locke makes abstraction the *differentia* of man (see 594*n*); Berkeley would substitute the imagination or 'Composition of Ideas'; see 531*n*, and *cf.* 'compounding and dividing them,' *Princ.* Introd. 10.

754. On cause and coexistence, see 403*n*; on occasion, see 499*n*.

755. On demonstration in ethics, see 669*n*; 'mixt' is 'applied,' as opposed to 'pure' mathematics. Geometry is assigned to mixed mathematics in 770.

756. On 'Idea of volition,' see 643*n*; on perception as passive, see 301*n*.

757. On thing and idea, see 369*n*.

758–768. 770. A series of observations on the nature of numbers, and on the mathematical disciplines. They should be read in conjunction with *Princ.* 118–122, though that passage deals almost exclusively with Arithmetic. (Berkeley discusses geometry, *ib.* 123–131, and in *TV* 149*ff.*; but he does not deal with Algebra, see 382*n*).

Berkeley's chief points are that number is a creature of the mind (see 104*n*), that numbers in themselves are nothing but names (*e.g.* the figure 2), and that the sciences which rest on them are of practical utility, but do not yield speculative truth.

In his technical language numbers are *signs* of ideas, but not ideas; conventional symbols would thus form the subject matter of arithmetic (767–8); 761 and 763 should be taken together as illustrations of this teaching. Berkeley is arguing that the sight (idea) of a multitude of objects conveys little or nothing to the mind, but that the 'name,' the specialized symbol, sets the mind on its proper task of computing and reckoning. This teaching is part of the exposure of the claim that arithmetic has for its object abstract ideas of number (see *Princ.* 118–9).

Note the distinction between arithmetical figures and algebraical signs (758), and that between numbers (names) and words (763).

'Imaginary roots,' *i.e.* $\sqrt{-1}$, would be, for Berkeley, simply one of the

'hard knots' of speculative mathematics (868) without basis in reality. He does not directly 'unravel that Mystery' in his published works. For 'Mixt Mathematics,' see 755*n*; on arithmetic and geometry, see 458; on points, see 59*n*.

769. This challenging statement on 'sensual pleasure' as the *summum bonum* is discussed above in my note on 541; the 'rightly understood' shows that Berkeley knew that his statement was open to misunderstanding (*cf.* 773). Of the word 'Gospels' not a letter is legible; the word is covered by a blot, apparently made by a reagent. Presumably it was legible in Fraser's time, or he would have marked it as doubtful. If the reading be sound, Berkeley must be considering the pursuit of pleasure in mundane matters as an earnest of eternal happiness, which is the sanction of the Gospel precepts; *cf.* 776 and *Maleb.* I xvii, 'God being infinitely above all other things, the pleasure of those who shall enjoy Him, will certainly exceed all other pleasures.'

771. Locke discusses Trifling Propositions in IV viii; Berkeley seems to have been interested in the chapter because of Locke's discussion of those identical propositions that are the supposed foundation of demonstration and certainty—see 669*n*.

772. On abstract ideas, see 318*n* and 552*n*; on existence, see 408*n*; on extension, see 18*n*; for the appeal to the vulgar, see 405*n*.

773. An important comment on Berkeley's statement (769) that 'sensual pleasure' is the *summum bonum*, recognizing that some so-called 'sensual pleasure' is 'contemptible.' On his hedonism, see 541*n*; *cf. Maleb.* IV x. 'Pleasure is always a good and pain always an evil . . .'

774. He is developing the metaphor, forcibly expressed in *Princ.* Introd. 5.

775. These are the two types of idea recognized in *Princ.* 33; note the erased 'or intelligible thing,' and for the three faculties, sense, imagination, and intellect, see 531*n*.

776. 777. Berkeley has a good deal in common with pragmatism, and he here

shows a firm grasp of the connection between belief and action; on his doctrine of certainty, see notes on 163, 669, and 693; on his hedonism, see 541*n*; he did not hold with disinterested religion or with disinterested virtue, and just as pleasure was, for him at this period, the goal of action here, so eternal happiness was, for him, the goal of action hereafter.

778. On the problem of equality, see 514*n*.

779. Hecht in his note on the entry expresses surprise at Berkeley's approval of this 'sensualistische' proposition, and tries to explain it away or tone it down. But this proposition, reasonably understood, is by no means sensualist, and acceptance of it is quite compatible with belief in spirit. Berkeleianism is a philosophy of sense and spirit, and not of spirit alone. Berkeley always makes sense the basis of the cognitive process (see 317*n*), and here, in effect, he traces the doctrine of abstraction to neglect of the evidence of sense. On abstract ideas, see 318*n*. The Schoolmen are styled 'those great masters of abstraction' in *Princ.* Introd. 17.

780. This 'old known axiom' is used in the *Three Dialogues* (p. 453) to prove that matter does not cause our perceptions; here, as the marginal letter *G* shows, he is thinking of it in connection with Deity. There Berkeley assumes its truth; here he denies it. The next group of entries are on Descartes, and he may be thinking of the use Descartes makes of the axiom in the third Meditation. If the axiom be used against creative causality, Berkeley is bound to oppose it, but quite consistently he can make use of it against material causality (see 403*n*). In the third edition of the *Three Dialogues* the reference to the axiom is dropped.

781. 782. 783. 784. 785. 786. A group dealing with Descartes' views. The Cartesians are named in 281, 424a, 453, 801, 811, and here Berkeley pays close attention to the *Meditations*, reading them, it would seem, in Molyneux's translation (1680), to which Hobbes's *Objections* and Descartes' *Replies* are appended.

Berkeley objects to Descartes' use of scholastic terms and arguments; he points out inconsistencies in Descartes' terminology; he criticizes Descartes' proof of the existence of God; he rejects problematical idealism, and tries to

vindicate the senses against Descartes' attack on them—see 790, 794–8, 805–6, 818–9, 845.

Berkeley denies the idea of God on the ground that ideas, being in their nature passive, cannot represent active spirit; but he had to guard his denial from misunderstanding, as he does in *Princ.* 140, because atheists and agnostics denied it too; see sermon by J. Harris, F.R.S., preached in St. Paul's Cathedral, 7th February 1698, entitled, 'The atheist's objection that we can have no idea of God Refuted.' Malebranche sometimes affirms the idea of God, sometimes denies it. On God, see 107*n*; on substance, see 80*n*.

787. Berkeley recognizes distinctions of quality in pleasures, including the distinction between 'pure' (*i.e.* free from attendant pain) and 'impure' pleasures, and thus he avoids many of the objectionable features of hedonism; see 541*n*.

788. His doctrine of soul (see 14*n*) and will (see 131*n*), long debated, has reached its final stage, and he here recognizes, as in the *Principles*, (*a*) the active principle under various names, and (*b*) the passive effects or ideas.

789. *Cf.* 608. Locke (III xi 7) deprecates party spirit, and there is little or no trace of it in Berkeley's writings; *cf.* 'I have always thought and judged for myself' (*Def.* 19). Both he and Locke are thinking of the emotive power of words in the formation of parties.

790. Locke (IV xi 5) writes, 'If I turn my eyes at noon towards the sun, I cannot avoid the ideas which the light or sun then produces in me'; and Descartes (*Med.* VI), 'These ideas . . . presented themselves . . . without my consent being required. . . .' The former passage is echoed in Berkeley's section (*Princ.* 29) on the causal argument for the existence of God.

A line is drawn in ink across the recto page between 790 and 791. There is no indication of its meaning.

791. Berkeley conceives the will as a continuous activity, see notes on 131 and 590.

792. The principle *esse est percipi* (see 408*n*) is extended to objects of the

imagination (see 531*n*). The will, not being an idea (see 131*n*), cannot be imagined; on 'the first Book,' see 508*n*.

793. 793a. Locke (IV v 2) divides propositions into mental and verbal, corresponding, respectively, to the truth of thought and the truth of words. In IV viii 13 he gives 'gold is a metal' as an instance of a verbal proposition; Berkeley is correct in doing likewise; but Berkeley's other two examples of verbal (nominal) propositions, the perceptual quality and the scientific property, are not convincing. He is apparently speaking in criticism of Locke; for Locke (IV i 6) gives 'gold is fixed' as an instance of coexistence, which, with non-coexistence, constitutes his third type of knowledge.

794. 795. 796. 797. 798. 799. A second series dealing with Descartes (for the first, see 781*n*) and especially with Hobbes's objections appended to Molyneux's translation of the *Meditations*.

In the last few paragraphs of the sixth Meditation Descartes takes the pain in the foot as an instance of the fallibility of the senses. Berkeley decides to 'vindicate the senses' (see 317*n*); he does so by urging that thought misleads us, not the senses; for thought makes us attribute the connection between pain and the bruised foot to nature instead of to God. On God and nature, see 485*n*, *Princ.* 150; for the denial of necessary connection, see 181*n*.

Hobbes's second objection (795–6) was directed against the *cogito ergo sum*; he says the *sum* is not validly inferred; for we only know the *cogito*, because 'we cannot conceive any act without its subject, as dancing without a dancer.' Locke (II xxi 17) uses a similar illustration. Descartes replies in effect: 'That is true; but it applies to any substance; we do not know it directly, but only as the subject of various acts.'

In his third objection (797–8) Hobbes argues that if Descartes identifies himself with his understanding, 'we shall fall into the scholastic expressions—the understanding understands, the sight sees, the will wills,' and that then 'the walking shall walk.' Descartes replies, 'I do not deny that I who think am distinct from my thought, as a thing is distinguished from its *modus* or manner.'

Berkeley dreaded Hobbes's materialism, and traces it to the separation of *esse* from *percipi* (799); but the two thinkers had points in common; for instance, they both rejected the 'idea of God,' and they had similar views on the mathematical problems and on general terms.

800. 801. 802. An important trio of entries containing Berkeley's final position about the reality of bodies and his theory of powers; see notes on 41 and 52. At the opening of the *CPB* (24) he wrote, 'Nothing properly but persons *i.e* conscious things do exist,' and bodies at that stage of his thought were not actual, but were simply powers in God to cause sensations in us. He became dissatisfied with that position; he saw its sceptical tendency; the contrast between active and passive began to dominate his thought; he saw the radical distinction between the mind of God and the mind of man, and by means of that distinction he reconciled the *esse est percipi* with the reality of the perceivable. Here he accepts sensible things as independent of Our (note the capital for emphasis as in 477a) mind, and yet dependent on the mind of God, and that is his official teaching; see 838 and *Princ.* 48, 90. The 'powers' theory is not mentioned in the *Principles*, but it comes up for brief discussion in *Dials.*, p. 457.

The unperceived perceivable is 'still with relation to perception,' because God actually does perceive it and man may do so. Things are 'effects,' because caused by God, see 433*n*.

On Malebranche, see 230*n*. I have given an account of his '*Illustration*' in my note on 686. Johnston, ignoring the capital letter, misunderstands the term; he takes it of a casual illustration employed by Malebranche (I 19), whereas it refers to the most important of the many excursuses appended to the *Recherche*. *Illustration* was the recognized English translation of Malebranche's term *Eclaircissement* (see T. Taylor's translation, London, 1700, 2nd ed.)

803. The point is developed in *Princ.* 121–2; 'Indian,' *i.e.* Arabic figures; 'Signs not Ideas,' see 766–7.

804. Locke (IV xvii) makes reasoning ancillary to demonstration, see notes on 163 and 817, and *cf.* 734. 'I question, no matter, etc.'; these must be instances of the *formulae* of reasoning.

805. Descartes, towards the end of the third Meditation, argues that the idea of God is innate; 'for it is not in my power to diminish it or to add anything to it.' Berkeley denies that we have an idea of God (782), but here he is content to argue that Descartes' argument for its innateness is unsound, because

all ideas, both of sense and imagination, could be proved innate by the same argument. For Berkeley's criticism of Descartes, see 781*n*.

806. Hobbes in his Objections (see 781*n*) has failed to distinguish between will and idea, and thus he has confused active and passive, and has, in consequence, been led to a denial of spirit.

807. From his own day to ours Berkeley's philosophy has been misconceived in this way, and he treats this misconception as the First Objection, and answers it in *Princ.* 34–6; on the reality of body, see 52*n*; on the reasons for preferring *idea* to *thing*, see 369*n*; on the 'Second Book,' see 508*n*.

808. 'Subject' is here non-technical, a synonym for *object*, *i.e.* 'yt I think on,' or *idea*, here sharply distinguished, as in the *Principles*, from the thinking, the act of volition or will (see 131*n*). This teaching is not at variance with that, *e.g.* of 656, where the distinction between 'perception' (*not* the act of perceiving) and 'the Idea perceived' is in effect denied; for there the 'act of the mind perceiving' is not identified with its object. For this definition of *idea* *cf.* 'any the immediate object of sense, or understanding,' *TV* 45. For Berkeley's earlier use of 'thought' as the equivalent of 'idea,' see 153*n*.

809. Locke (IV v 4) says that in the case of complex ideas, like fortitude, we think more readily about the name than the idea, but that in the case of the simpler ideas, like white or black, we can and do frame the idea without reflecting upon the name. It is not complexity that makes the difference, replies Berkeley, but abstraction, see 318*n*.

810. 'Pure Intellect' is the title of Book III of Malebranche's *Recherche*; for Berkeley's hesitation about the faculty, see 531*n*.

811. This entry has no marginal sign, and perhaps it is not a considered judgement. Certainly there are difficulties in both parts of it. Is it true that where Locke differs from the Cartesians, Berkeley takes side with Locke? (Of the Cartesians Malebranche is, no doubt, principally in view, see 265*n*.) It is true, with regard to general approach to philosophy and the empirical method; in some few respects it is true of Locke's teaching on solidity. It is not true

with regard to many, if not most, of the other points of difference. On matter Locke and Malebranche are both far from Berkeley, but Locke is the further. On innate ideas, the imagination, causation, and the immanence of God, Berkeley is closer to Malebranche than to Locke. Berkeley apparently does not regard abstract ideas as a point of difference; but he specifically attacks Locke's doctrine, and while the Cartesians do use abstract ideas, they have nothing corresponding to Locke's doctrine.

The second half of the entry is hardly consistent with the first; for if Locke is right, and the Cartesians are wrong, how could fidelity to their own principles make them 'allow of his opinions'? The insertion 'or cause' has probably helped to confuse the statement (Fraser and Johnston read 'causes'). Perhaps Berkeley simply meant that Locke and the Cartesians have a good deal of common ground about abstract ideas. On existence see 408*n*; on abstract ideas, see notes on 318 and 552.

812. 'The propertys . . .' This proposition occurs in Latin in 177a (see note) as a quotation from Le Clerc. 'Blind agent' is a contradiction, for Berkeley, because he regards will and understanding as necessarily conjoined; *cf.* 'blind unthinking deputy,' *Princ.* 150.

813. On certainty, see notes on 163, 669, and 693; on God, see 107*n*; on intuition, see 547*n*.

814. At first when he was experimenting in terminology Berkeley was disposed to question the immortality of the 'soul' (see notes on 14 and 478), but here, as in *Princ.* 93 and 141, he treats it as immortal and incorruptible.

815. 816. On will and perception, see 131*n*; on will and understanding, see 362a *n*. Error, mentioned in 737 and 783, is not discussed elsewhere in the *CPB* or in the *Principles*. Berkeley here agrees with Descartes (*Med.* IV) and Malebranche (I iv) that will is the real cause of error. That perception is inerrant is stated also in 693; *cf. Princ.* 87, 'Colour, figure, motion, extension, and the like, considered only as so many sensations in the mind, are perfectly known: there being nothing in them which is not perceived.'

817. 'Tell a country gentlewoman that the wind is south-west, and the

weather louring and like to rain, and she will easily understand it is not safe for her to go abroad thin clad in such a day, after a fever.' Locke (IV xvii 4) thus illustrates the distinction between reasoning and demonstration ; see 804*n*.

818. Descartes (*Med.* VI) and Malebranche, *Illustration* on Bodies (see 686*n*) speak of the supposed inclination to believe in the existence of bodies. They did not examine, Berkeley argues, the meaning of *existence* (see 408*n*), and consequently they have to suppose the existence of matter as 'something we know not what.' For ideas of the imagination as copies of ideas of sense, see *Princ.* 33.

819. Descartes (see 781*n*) deals with the nature of ideas in his *Discourse on Method*, Part IV. In answer to Hobbes's 5th objection, *viz.* that we have no image or idea of God, and on that account are forbidden to worship Him under an image, he replies that Hobbes is identifying idea with image, but 'I take the name idea for whatever is immediately perceived by the mind' (Molyneux's translation, p. 131). See also *Meditation* III for idea and 'objective reality.'

820. 821. On will and understanding, see 362a *n*.

822. Berkeley, probably with Hobbes in mind, refers to the 'belief, that the mind of man is as a ball in motion,' *Princ.* 144, *cf. CPB* 193 ; on will, see 131*n*.

823. A distinction fundamental in Berkeley's philosophy. He holds the reality of the sensible world, and distinguishes it carefully from the world of the imagination, see *Princ.* 28–33 ; on archetypes, see 689*n*.

824. 825. 826. 827. A study of Spinoza (1632–77) begins here and is continued in 830–1 and 844–5 ; these entries contain references to the materializing tendency of Spinozism, to the doctrine of space as an attribute of God, to transcendental and general terms, to immanent causality, to external truths, to extension conceived in and through itself, and to the definition of God.

Berkeley mentions the *Opera Posthuma* (1677) which contains the *Ethics*, *Tractatus Politicus*, *De Emendatione Intellectus*, and 74 letters including those to

Oldenburgh. Its Preface quotes from the 21st letter to Oldenburgh Spinoza's statement, 'Deum omnium rerum causam immanentem, ut aiunt, non vero transeuntem statuo. Omnia, inquam, in Deo esse, et in Deo moveri, cum Paulo affirmo.'

Berkeley, as did many thinkers in his day, viewed Spinoza as an atheist and a materialist, and shows no consciousness of the resemblance between his own doctrines and those of Spinoza, alleged by Clayton, *Essay on Spirit* (1750), p. 1, and in the review of the *Three Dialogues* in the *Acta Eruditorum* (1727), pp. 380–3.

On Epicurus, see 17*n*; on extended Deity, see 107*n*; on causality, see 403*n*; on Raphson, see 298*n*. St. Paul's text, 'In Him we live . . .' (Acts XVII 28), the closing words of Malebranche's famous chapter (III ii 6) on *That we see all things in God*, became a great favourite with Berkeley. He quotes it in *Princ.* 149, in *Dials.*, pp. 427, 453, in *Alc.* IV 14, and on the title page of *TVV*.

828. 829. For 'purus actus' and the denial of the idea of the will, see notes on 131 and 701; on substance, see 80*n*; on the three faculties, sense, imagination, and pure intellect, see 531*n*.

830. 831. Creation *de nihilo* is explained by Berkeley as the causal production of ideas by God, and is here illustrated by man's power of productive imagination (see 60*n*); on the imagination, see 531*n*, *Princ.* 28; on Spinoza, see 824*n*; on eternal truths, see 735*n*; on cause, see 403*n*; on God, see 107*n*.

832. In the *Principles* Berkeley denies absolute existence (sect. 24) and absolute time, space, and motion (sect. 110–7); but here (the marginal letter *P* suggests it) he has in view Locke's distinction between primary and secondary qualities, the former supposed to exist absolutely, the latter only in relation to us.

833. For 'seeing' (Fraser and Johnston) read 'being,' an old idiom on which see 662*n*. Berkeley regards conation as the seat of personal being, arguing here that a state of comparative indifference is willed in preference to annihilation, just as he argues in 791 that acquiescence in being is willing. On will and perception, see 131*n* and 362a *n*; on pleasure and pain, see 541*n*; on uneasiness, see 145*n*.

834. Thos. Hobbes (1588–1679), author of *Leviathan* (1651), *De Corpore* (1655), and many other works, claimed to have solved the traditional problems of Euclidean geometry. His claim gave rise to the famous controversy here referred to, bringing under discussion many of the mathematical problems discussed in the *CPB*, *e.g.* the quadrature of the circle, the angle of contact, and the definitions of point, line, and angle.

Prof. Seth Ward attacked Hobbes in *Vindiciae Academiarum* (1654), and Wallis continued the attack in his *Elenchus Geometriae Hobbianae* (1669), and in *Thomae Hobbes Quadratura . . . Confutata*, and *denuo Confutata* (1669). Hobbes wrote several replies, including *Six Lessons to the Savilian Professors* (1656), *Examinatio et Emendatio Mathematicae Hodiernae* (1660), and *Quadratura Circuli Cubatio spherae, Duplicatio Cubi, breviter demonstrata* (1669). On Wallis, see 482*n*.

835. On superior spirits, see 410*n* ; on their enlarged sight, see 749*n*, *TV* 84 and 153*ff*.

836. This seems to have formed part of a projected indirect argument against matter (*cf.* 68*n*) ; *viz.* if there be matter, how are the beauty and proportion of things to be explained, which, like the sorts or species, are the workmanship of the mind ? *Cf. Locke* III iii 13.

837. For the Hobbes–Wallis controversy, see 834*n*.

838. This is Berkeley's main proof of the existence of God (see 107*n*), formally stated in *Princ.* 29–30. On the laws of nature, see 144*n*.

Here, as in *Princ.* 90, he admits that sensible things are outside our minds in respect of their origin ; they are in our minds when we perceive or think them ; but they do not originate in our minds ; they may pass out of our minds into other minds, but they remain permanently in the mind of God who gave them. ' independent of my Will,' *cf.* 477*a*, 801.

839. The marginal sign shows that ethics is under discussion. No doubt Berkeley is criticizing the hedonism which takes account only of the pleasure of the moment. His own hedonism takes account of the future and the supernatural, see 541*n* and 851.

840. A *jeu d'esprit* connecting literal solidity (see 78*n*) with Sergeant's *Solid Philosophy Asserted, Against the Fancies of the Ideists*(1697).

John Sergeant (or Sargent, 1622–1707), Roman Catholic controversialist and critic of Locke, wrote also *The Method to Science* (1696); for an account of his philosophy, see G. A. Johnston, *Development of Berkeley's Philosophy*, pp. 383*ff*.

841. 842. On will and understanding and their contents, see 362a *n*.

843. The distinction between *idea* and *ideatum*, common in Spinoza, and assumed by all representationists, disappears, for Berkeley, in the case of the idea of sense; there he admits no 'idea of,' see 115*n*; the distinction remains, however, in the case of the idea of the imagination, as explicitly stated in *Princ.* 33. On the laws of nature, see 144*n*.

844. 845. Both entries arise from the one passage in a letter of Spinoza (see 824*n*) to Oldenburgh, dealing with space (see 18*n*) and Deity (see 107*n*).

Oldenburgh (*1626?–1678*), of Bremen, philosopher and man of letters, corresponded with Milton and Cromwell, and afterwards settled in London, becoming the first secretary and foreign correspondent of the Royal Society. In August 1661 he wrote to Spinoza and inquired his views on God, extension, and the Cartesian philosophy. Spinoza replied, 'De Deo . . . quem definio esse Ens, constans infinitis attributis, quorum unumquodque est infinitum, sive summe perfectum in suo genere. Ubi notandum me per attributum intelligere omne id quod concipitur per se et in se . . . ut, ex. gr. extensio per se et in se concipitur.' (Spinoza, *Opera Post*, p. 397).

Descartes in his enumeration of the divine attributes (*Med.* 3) more than once uses the term 'sovereignly perfect.'

Berkeley has not given a formal definition (see 44*n*) of God, but the lines it would have taken may be gathered from his statements in 838 and *Princ.* 146.

846. 'Nothing . . . does more contribute to blend and confound them together, than the strict and close connexion they have with each other,' *TV* 145; see 28*n*.

847. 848. 849. In 847 read 'we or selves or mind, etc.' for '"we," our "selves," our "mind," etc.' (Johnston; Fraser reads 'or'), and in 848 note 'not' (which Johnston omits) before 'mention.'

The 'Grand Mistake,' for Berkeley, lies in thinking we know our active nature as we know ideas. His terminology and teaching here are those of the *Principles*, *viz.* that will and understanding (see notes on 131 and 362a) are aspects of the active spirit, and are therefore distinct from their contents, the objects willed and perceived.

850. Spirit is the only true cause, for Berkeley, but he concedes the name 'cause' to ideas in the sense of sign, see 403*n*. 'many absurditys.' *e.g.* causes that do nothing, see 856.

851. 852. On present good, see 839*n*, and on Berkeley's hedonism and the two sorts of pleasure, see 541*n*.

853. For the three branches of philosophy, see 676*n*; on coexistence, see 403*n*; on relation, see 540*n*; on definition, see 44*n*; on inclusion, see 690*n*; on Berkeley's projected books, see 506*n*. Here only is the work on natural philosophy named: it is represented to some extent by the *De Motu*, as the projected work on mathematics is represented by the *Analyst*.

854. Will, thought, and feeling, as elements in the active being, are one; they are differentiated by their contents or objects, see 362a *n*.

855. 856. *Cf.* 850: on cause, see 403*n*: on occasion, see 499*n*.

857. 'The motive for continuing in the same state or action is only the present satisfaction in it: the motive to change is always some uneasiness.' *Locke* II xxi 29. Berkeley regards the statement as a *reductio ad absurdum* of the doctrine of uneasiness, see 145*n*; on sleep and trance, see 651*n*.

858. On demonstration, see 163*n*, and for Berkeley's original intention to deal with demonstration in the Introduction, see 212.

'I must cancell all passages . . .' Passages from what? Not from the *CPB*; for then the entry would be rather pointless, and in point of fact its passages on demonstration are not cancelled; nor from (what we now call) the *Draft Introduction*, for it does not deal at all with demonstration. It remains that a good deal of the work referred to, perhaps a draft of the *Draft Intro-*

duction, must have been written before he finished the *CPB*. This supports my conjecture (see my Introduction, p. xxxv) that the *CPB* was originally rather a commentary on an actual composition than notes on his reading. I have pointed out in my note on 212 that some 26 entries originally had the marginal letter *I* (Introduction), the letter being subsequently stroked out owing to changes in the design of the Introduction. Berkeley may well have written a draft composition, covering both Introduction and the body of the work, subsequently cancelling in it the extreme passages on demonstration, and erasing the marginal letter of the corresponding passages in the *CPB*.

859. 860. Read 'covet' and 'Discovery' for 'cavil' and 'diseases' (Fraser and Johnston).

Berkeley is trying to explode the 'excuse' (see 292*n*)—'the natural weakness and imperfection of our understandings.' *Princ.* Introd. 2, 3. Our faculties are not at fault, he urges, but our principles. 'We have first rais'd a dust, and then complain, we cannot see.' Were our faculties naturally defective, he here argues, we ought not to philosophize at all.

861. 862. Against the representationist theory which regards the idea as the likeness of matter, see 46*n* and *Locke* II viii 15.

863. Berkeley's views on the existence of bodies underwent important modifications while he was writing the *CPB* (see 52*n*). This entry shows his thought at the final stage. On the distinctness of the mind, see 14*n*. 'without the Mind,' *cf. Princ.* 90.

864. 865. Contrasting visible motion, which depends on diversity of colours (see 533), with the abstract idea of motion; see 318*n*, *TV* 137, *Princ.* Introd. 9, 10.

866. Berkeley is thinking, probably, of those consequences of the belief in matter which he mentions in *Princ.* 92–6. Matter 'involves a contradiction' (*ib.* 54), because it is not a possible object of sense, and yet one is supposed to see and touch it.

867. 'The Concrete of the Will and understanding' (713) is fully real, for

Berkeley, but its elements when taken separately and divorced from actual experience become abstract ideas, see 318*n* and 871. On the vulgar and the learned, see 405*n* and 703.

868. 'Some of the more intricate and subtile parts of *speculative mathematics* may be pared off without any prejudice to truth'; *Princ.* 131; *cf.* 207*n* and 434.

869. If the objects of sight and touch are in fact heterogeneous (see 28*n*), how comes it that we are commonly supposed to see and touch the same thing? Berkeley gives a broad answer to this question in *TV* 144–5, and deals with it more narrowly in terms of minimal points (see 59*n*) in this entry and also in 70, 710, and *TV* 62.

'it might have been otherwise,' a reference to Berkeley's doctrine that the connection between ideas is customary and not necessary; see 181*n*.

Notebook *B* deals, for the most part, with vision, and notebook *A* with metaphysics, and therefore the occurrence of this stray entry on vision, marked with the marginal sign for all three divisions of the *Theory of Vision*, and actually represented in each of those divisions (49, 54, 144), on the last page but one of notebook *A* is remarkable. This page must have been filled in the summer of 1708, and the *Theory of Vision* (published early in 1709) must have been at an advanced stage by that time; it would seem therefore that, as I have argued in my Introduction (p. xxxv), Berkeley wrote the *CPB* rather as a commentary on a draft work of his, already written, than as a preliminary study.

870. On 'pure act,' see 701*n*; on 'Soul or Mind,' see notes on 14, 154, 576.

871. 873. Time and again Berkeley returns to the problem of will and understanding, see notes on 362a and 867; on truth, see 554*n*; his doctrine of abstract ideas (see 318*n*) now dominates his thought. 'ratione,' *i.e.* in conception.

872. Spirits are thinking things, for Berkeley, and ideas are unthinking things; he uses *thing* and *idea* convertibly with regard to the latter type of reality; but if he were to do so with regard to the former type, he would in effect be calling spirits *ideas*, making active things passive, thus involving the notion of spirit in contradiction, see 369*n*.

874. He is thinking of Locke and Malebranche and other 'moderns' who, accepting the distinction between primary and secondary qualities, 'prove certain sensible qualities to have no existence in matter, or without the mind' (*Princ.* 14). Holding that the primary and the secondary are inseparable, he argues that those who internalize the secondary qualities are in effect also internalizing the primary. If he intends the term *sort* to be taken technically, he is referring to Locke's proof that the sorts are the work of the mind, see 836*n*; on the reality of body, see notes on 41 and 52.

875. Will (see 131*n*) here might be the will of God, or the will of man, but the marginal sign *S.G.* suggests that Berkeley is chiefly thinking of the former, and is asking whether man can know the will of God with regard to the present or the future. A similar question *mutatis mutandis* could be raised of the human will, and Berkeley's broad answer (see *Princ.* 135*ff.*) is that the will, as an aspect of spirit, is not to be known as ideas are known, but yet is known.

876. Motion, for Berkeley, being relative, postulates at least *two* bodies, see *Princ.* 112, *Mot.* 58. He may be thinking of Malebranche's (VI ii 9), 'I imagine here only God, myself, and one ball.' For motion apprehended by variety of colour, see 533*n*.

877. The infinite divisibility (see 11*n*) has scarcely been mentioned since the opening pages of notebook *A*. Berkeley argues that if the given space be infinitely divisible, so also must be the sensible qualities inseparable from that space—a *reductio ad absurdum*, he thinks, of the doctrine.

878. Extension (see 18*n*) is in the mind, says Berkeley in *Princ.* 49, only by way of idea, and not by way of mode or attribute; an application of this important principle is given in 886 (*cf.* 882). This principle distinguishes Berkeley's philosophy from Spinoza's, and corrects the first impression left by his doctrine of existence in the mind. On 'Book 2,' see 508*n*; on the soul, see 14*n*.

879. Locke II xxi 22*ff.*, says that this question 'is what is meant, when it is disputed whether the will be free,' and his answer to it is 'that in most cases a man is *not* at liberty whether he will *will* or no.' Berkeley regards the question

as absurd because free activity is implied in the notion of the will (see 131*n* and 616).

880. On algebra, see 382*n*. In his *De Ludo Algebraico* Berkeley uses the term *quaestio* for the forming and solving of algebraical equations; but what 'the Rule' is does not appear.

881. In 761–8 Berkeley argues that numbers *are* names, not ideas, that they yield no speculative knowledge, though they are of practical use; on numbers, see 104*n*.

882. He admits here, as again in *Princ.* 90, that things are external to the mind in the senses specified; see notes on 79, 863, and 878; on extension, see 18*n*; on mind, see 14*n*.

883. If the defects of memory and imagination, which give rise to the need for signs, especially verbal signs, could be cured, the need for signs would disappear, Berkeley here suggests. His later doctrine of signs, best expressed in *Alc.* VII 11–14, gives them an essential place in human knowledge.

884. The laws of nature depend on the will of God, *Princ.* 32; there is therefore no necessary connection between our ideas, *ib.* 31, and 'there is nothing necessary or essential in the case,' *ib.* 106; *cf.* 181*n* and 794.

885. Read 'simple' for 'single' (Johnston: Fraser omits the entry); *cf.* 484*n* and 496. The second sentence should be read as a satirical comment on Locke's doctrine, 'Ideas of primary qualities are resemblances.' Visible extension and material extension differ fundamentally. The one is 'in the mind'; the other (*ex hypothesi*) is not. Therefore the one cannot resemble the other. On simple ideas, see 53*n*; on resemblance, see 46*n*.

886. Against the doctrine of space as a mode of mind, see 878*n*.

887. 888. The text is doubtful, and the meaning of these two references to de Vries is not clear. Fraser reads 'we know the mind agrees with things not by idea but sense or conscientia'; Johnston reads, 'we know the mind as we do Hunger not by idea but sensation conscientia.'

Johnston's reading in the main is strongly supported by de Vries' words on p. 66 (two pages after the page mentioned in the previous entry) of his *Diatribe de ideis rerum innatis*, appended to the New Edition (1695) of his *Exercitationes rationales de deo divinisque perfectionibus* (1685), 'In nos descendere si voluerimus, plurimarum rerum quarum immediate nobis sumus conscii, sensum magis & conscientiam in nobis deprehendemus, quam ullum earundem per ideam repraesentamen. In quarum numerum fames, sitis, dolor . . .' The manner of our knowledge of spiritual objects was keenly debated between de Vries, Roell, Wagardus, and others.

Gerard de Vries, Professor of Theology at Utrecht (not to be confused with Simon de Vries, Spinoza's friend and correspondent) was a copious writer on moral and natural philosophy. Besides the works mentioned above he wrote, *De fictis innatarum idearum mysteriis* (1688–92) and *De natura dei et humanae mentis* (1690).

Berkeley's doctrine of self-knowledge (see *Princ.* 135*ff.*), *Dials.* pp. 447–8, is very like that of Malebranche, *viz.* that we know our own minds, not by idea, but immediately by an act of reflection—'conscience' as Malebranche calls it; and therefore the phrase in *De Motu* 21, 'conscientia quadam interna' may well derive from Malebranche, and be reflected in these entries; since the reading is uncertain, it is useless to speculate as to the point on which Berkeley differs from De Vries and Malebranche. On Malebranche, see 230*n.*

Folio 95. After 'Adventure of the' there is a word of five or six letters printed as 'shirt' by other editors.

I have not been able to identify 'Clov.'

The small sum is, I think, in Berkeley's handwriting.

APPENDIX

INVENTORY OF THE CONTENTS OF ADDITIONAL MS. 39305

Folio	
1, 2	Blank
3	Table of marginal letters with meanings. Two signatures
4–94	Philosophical entries
95	Headed 'August 28th 1708 ~~wit~~ the Adventure of the . . .' followed by an eight-line note, 'It were to be wish'd,' etc.
96*r*	Blank
96*v*–101	Date and thirty-five 'Statutes' of a Society, see below, pp. 470–72
102	*Disputatio* on Locke's *Essay*, see below, pp. 472–4
103*r*	Date and four rules of a Society
103*v*	Note from Cicero and reference to Math
104–164*r*	Philosophical entries
164*v*	(Inverted.) Eight notes and queries on Locke's *Essay*
165*r*	Blank
165*v*	(Inverted.) Seven lines of notes for a sermon
166 *r* and *v*	(Inverted.) Seven laws of motion and two problems, see below, pp. 474–5
	N.B.—From this on, several pages have been cut out and the stubs left.
167*r*	Eight lines giving the conclusion of the *Description of the Cave of Dunmore*, followed by blank *verso* and a blank folio
168*r*	Blank
168*v*–169	Algebraic equations for the Appendix of the *De Ludo Algebraico*
170*r*	Blank
170*v*–179*v*	*Verso* only, inverted, reverse order of pages, the *Description of the Cave of Dunmore*
180	Blank

STATUTES OF A SOCIETY

(Folios 96 to 101)

Mem. the following Statutes were agreed to & sign'd by the Society consisting of eight persons, Jan: 10. A.D. 1705.

That the officers of this Society be a President, Treasurer, Secretary & Keeper of the Rarities

That these officers be elected out of the members by the majority of voices.

That every member when he speaks address himself to the President

That in case of equality the President have a casting voice

That when two offer at once, the President name the person that shall speak

That the assembly proceed not to any buisiness till the President give orders

That in the absence of the President the assembly choose a Chair-man

That no new member be admitted before the 9th of July 1706

That the Treasurer disburse not any mony but by order of the house sign'd by the President and directed by the Secretary.

That he shall make up his accompts Q^terly or upon resignation of his office

That the notes sign'd by the President & directed by the Secretary make up the Treasurer's accompts.

That the Treasurer may disburse mony for publick letters without a note from the President, but shall acquaint the assembly with it next meeting and then get a note.

That the Secretary have the charge of all papers belonging to the Society.

That the Keeper of the Rarities attend at the Musaeum from 2 to 4 on Friday or the person whom he shall depute.

That at the request of any of the members the Keeper of the Rarities attend in person or send the key to the member.

That no one Interrupt a member when he is speaking.

That no one speak twice to the same matter before every member who pleases has spoken to it

That no one reflect on the person or opinion of any member whatsoever.

That if any one uses an unwary expression he may have leave to explain himself

That no member reveal the secrets of the assembly

That when any of the members bring in a paper, the President appoint any three he pleases to examine it against the next meeting & give in their opinion of it in writing.

That the time appointed for meeting be 5 of the clock every Friday evening

That whoever is absent from the assembly be fined 6 pence & he that comes after six of the clock 3 pence.

That the punishment for the transgression of any other Statute be determin'd by the assembly

That these punishments be pay'd the Treasurer either before or at next meeting.

That the assembly may repeal or alter these statutes or make new ones

That everything not provided for otherwise be determin'd by majority of voices

That the election of officers be made at the last meeting of every quarter, and that the officers then elected continue for the three following months.

That whoever leaves the assembly before its broken up pay 3 pence

That every meeting the majority appoint a Subject for next conference

That 1st the President speak concerning the matter to be discours'd on and after him the next on his right hand, and so on every one that pleases in order as they sit, and that each member stand up as he speaks.

That when these more solemn discourses are over and not till then, every one may talk freely on the matter and and propose and answer whatever doubts or objections may arise

That when the subject of the conference has bin sufficiently discuss'd the members may propose to the assembly their inventions, new thoughts or observations in any of the Sciences.

That the conference continue for 3 hours at least or longer as the assembly think fit.

That the conference begin at 3 in the afternoon on Friday & continue till eight.

DISPUTATIO ON LOCKE'S *ESSAY* ('THE QUERIES')

(*Folio* 102)

Qu: whether number be in the objects wthout the mind? L.b.2 c.8 S 9 why powers mediately perceivable thought such, immediately perceivable not. b.2 c.8 S.19

Whether Solids seen b.2 c.9 S.9

Whether discerning, remembering, knowing comparing compounding abstracting etc be simple or complex ideas, the same with or different from perception?

Whether taste be a simple idea since it is combin'd with existence, unity, pleasure or pain?

Whether all the last-mention'd do not make a complex idea as well as the severall component ideas of a Horse, Shilling etc.

Wherein brutes distinguish'd from men ?

Wherein idiots from mad men ?

Whether any Knowlege without memory ?

God Space b.2, 13, 26, & 15.2

rotation of a fire-brand why makes a circle

Why men more easily admit of infinite duration than infinite expansion ?

Demonstrations in numbers whether more general in their use for the reason Locke gives b.2 c.16 S.4.

Inches etc not settl'd stated lengths against b.2.c.13 S.4

Qu: whether motion extension & time be not definable & therefore complex ideas.

Qu: whether the clearness & distinctness of each greater mode of number be so very signal.

Qu: why Locke thinks we can have ideas of no more modes of Number than we've names for ?

Not all God's attributes properly infinite.

Why other ideas besides number etc not capable of infinity ? not rightly sol'd by Locke

infinity & infinite.

No such thing as an obscure, confus'd idea of infinite space.

Power is not perceiv'd by sense

Locke not to be blam'd if tedious about innate ideas, Soul always thinking, extension not essence of body, time can be conceiv'd and measur'd when no motion was, will is not free etc.

A thing may be voluntary tho' necessary, query whether it can be involuntary tho' free.

Things belonging to Reflection are for the most part express'd by figures borrow'd from things sensible.

LAWS OF MOTION AND TWO PROBLEMS

(Folio 166 inverted)

De Motu

1. Actioni semper contraria & aequalis Reactio.

2. Quantitas motus quae colligitur capiendo summam motuum factorum ad eandem partem & differentiam factorum ad contrarias partes non mutatur ab actione corporum inter se.

3. Si duo vel plura corpora motu aequabili, secundum eandem vel contrarias partes ferantur commune illorum centrum gravitatis ante mutuum occursum vel quiescet vel movebitur uniformiter in directum.

4. Si duo corpora versus eandem vel contrarias partes moveantur Quantitas motus ad eandem partem aequalis erit motui qui produceretur Si utrumque corpus versus eandem plagam cum celeritate communis ipsorum centri gravitatis ferretur.

5. Si corpora in se invicem impingent vel etiam utcunque in sese agant communis illorum gravitatis centri status vel quiescendi vel movendi uniformiter in directum, non exinde mutabitur.

6. Si corpus durum vel molle corpori duro vel molli directe impingat, sive illud in quod impingat, quiescat, sive versus eandem partem tardius moveatur, seu [× × ×] versus contrariam sintque motus inaequales, utcumque corpus post impactum una cum communi gravitatis centro junctim movebitur.

7. Si duo corpora in se invicem impingent eadem manebit ipsorum velocitas relativa ante & post impactum h.e eadem celeritate a se mutuo recedunt qua prius accedebant.

PROB. 1

Corporum A B durorum aut mollium post directum impactum determinare motus. Vocetur velocitas corporis A, C, corporis B.c. eritque summa motuum ad eandem partem AC + Bc vel AC — Bc, quae summa (per 2) eadem et ante et post impetum. ergo (per 5) datur momentum corporum eadem velocitate laterum quae proinde $[\times\times\times]\ \frac{AC+Bc}{A+B}$ vel $\frac{AC-Bc}{A+B}$

PROB. 2

Idem perficere in Elasticis. Sit A insequens B praecedens $[\times\times\times]$ prius erit velocitas relativa (— c summa motuum AC + Bc. velocitas ad eandem partem post impactum corporis A sit x, unde (per 7) velocitas T & B erit x + C — c. & motus T & A erit Ax∝T∝B erit Bx + BC — Bc ergo (per 2) AC + Bc = Ax + Bx + BC − Bc,

$$\& \ x = \frac{AC - BC + 2Bc}{A+B}$$

Si A & B in contrarias partes ferantur, erit motus ad eandem partem AC — Bc, velocitas relativa C + c unde per 2 & 7 invenietur

$$x = \frac{AC - BC - 2BC.}{A-B}$$

INDEX

NOTE ON THE USE OF THE INDEX

In most of the references to my Notes I have given here the entry number and not the page number. In all such cases I have prefixed 'No.' to the entry number. Thus '*see* Note on No. 318' refers to the Editor's Note on the entry numbered 318. Where 'No.' is *not* prefixed (*e.g.* 'abscisse, 107') the number refers to the page number of this book.

I have included some sixty names and subjects from my Introduction and Notes, but in the main the Index is, as students of Berkeley's philosophy would wish, an Index of the Text of Berkeley's own work.

The Index is intended to be used in conjunction with the Editor's Notes, especially those listed (above, pp. 317–8) as Key Doctrinal Notes. Those Notes assemble the references to most of the cognate passages in the work, and each of them is, therefore, a little Index of its subject. Accordingly, I have refrained from repeating those references in the main Index. For similar reasons I have refrained, as a rule, from indexing *directly* the contents of my Notes. They are indexed *indirectly*; for the Notes cover the same ground as the Text, and since the Text is fully indexed, to do the same for the Notes would have been a pointless duplication of labour. On finding in the Index the required reference or references to the Text, the reader, to complete the study, has only to turn to the corresponding Notes.

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